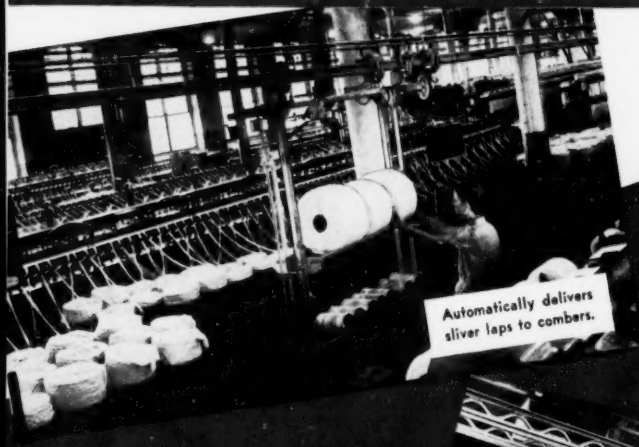
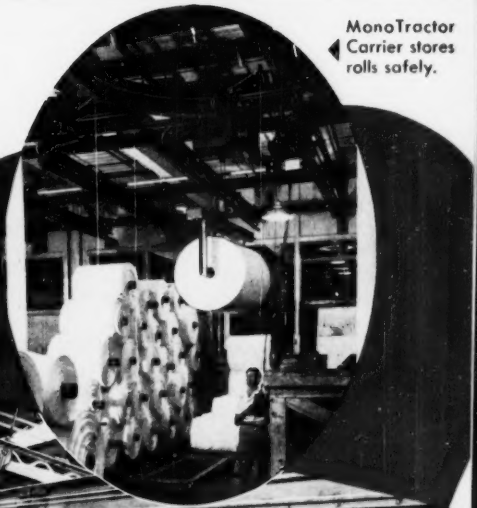
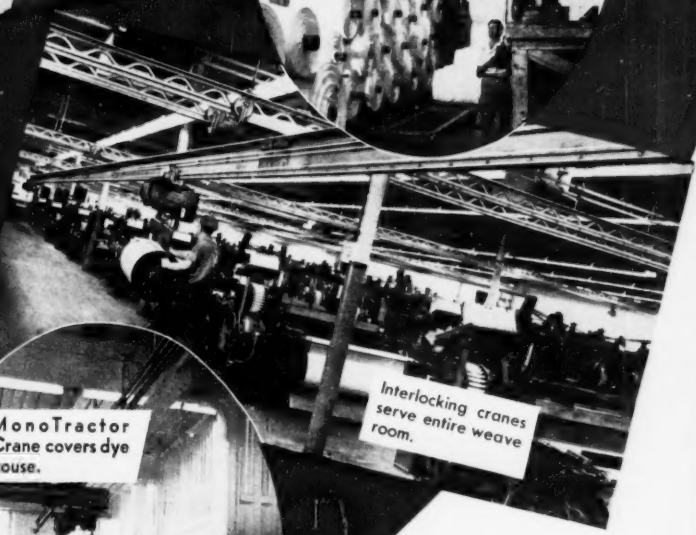
FEBRUARY, 1952

Textile Industries

formerly
COTTON
Textile Industries







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Volume 116 Number 2

Save Time - Save Money!

with DRAPER PACKAGED UNITS

The Draper #11 Motor Drive has been added to the ever-growing list of Draper mechanisms that are individually packaged — one mechanism per box — one box per loom.

This additional service will save you time and money when you modernize your looms with Draper Improved Mechanisms. No more piles of parts — just drop a box by each loom.

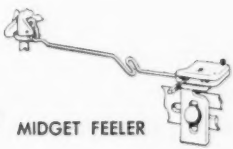
Among the mechanisms individually packaged are the:

Midget Feeler, Stafford Thread Cutter, Battery, #10 Selvage Motion, #10 Motor Drive, Bartlett Let-Off, #11 Motor Drive.

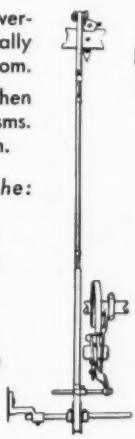
Within a short time many others will arrive at your mill in their individual boxes.

Take advantage of this added convenience — modernize your looms with Draper Improved, Individually Packaged Mechanisms.

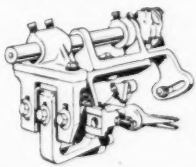
BATTERY



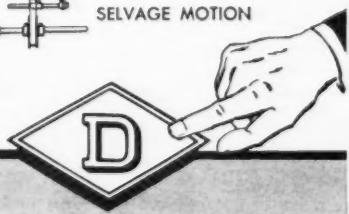
MIDGET FEELER



SELVAGE MOTION



STAFFORD THREAD CUTTER



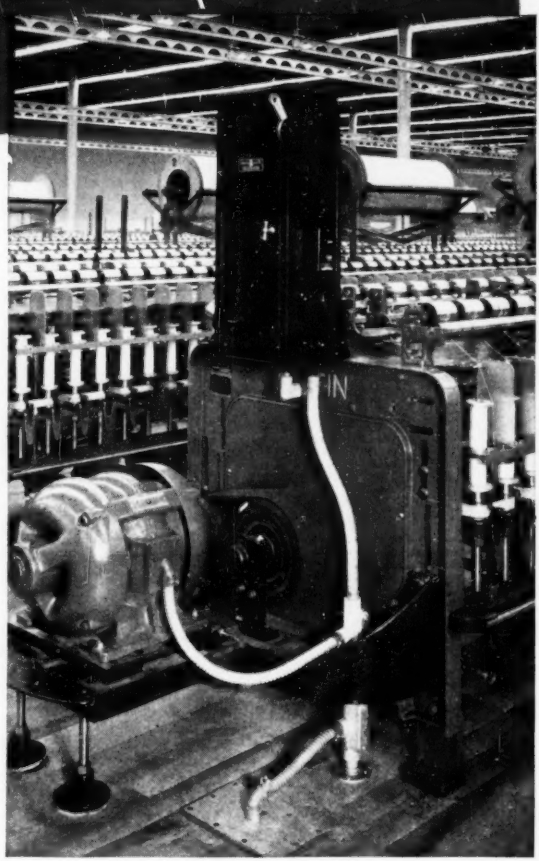
DRAPER CORPORATION

ATLANTA, GA. HOPEDALE, MASS. SPARTANBURG, S. C.

THE WORLD'S LARGEST MANUFACTURERS OF AUTOMATIC LOOMS

REDUCE POWER CONSUMPTION...

by lubricating with TEXACO REGAL STARFAK



One of the outstanding advantages of *Texaco Regal Starfak* for lubrication of high-speed, grease-lubricated, anti-friction bearings is its low internal friction. This means low starting and running torques . . . reduced power consumption.

Texaco Regal Starfak is premium-quality . . . far excels ordinary grease in resistance to oxidation and gum formation. *Texaco Regal Starfak* does not separate or leak out. It stays in the bearings, stands up in the severest service, remains stable both in use and in storage.

Use *Texaco Regal Starfak* in spinning frame cylinders, eccentric straps, beamers, wipers, electric motors and other machinery. You'll find that bearings last far longer, maintenance costs are far lower.

For top roll and loom lubrication, use *Texaco Stazon*. It stays on the bearing surfaces, will not splatter, creep or drip . . . assures cleaner yarn and fabric. For effective fibre conditioning, use *Texaco Texspray Compound*. You'll assure more long staple, more uniform count.

A Texaco Lubrication Engineer will gladly help you simplify and improve your lubrication practices. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

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ABC NBP

Textile Industries

Volume 116, Number 2
February, 1952

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"I DUNNO WHO HE IS—HE'S BEEN HANGING AROUND SINCE THAT LAST SHIPMENT OF GUM ARABIC."

We haven't really met this character yet. But we might—we get raw materials from many strange lands, and SEYCO Products are shipped as far as Pakistan and Uruguay.

If you've got any Gremlins around your mill, call the SEYCO man. A half-century of broad experience is at your service.

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Only with B. F. Goodrich grommet belts can you make these savings!

Save 3 ways! Investigate today! Write or mail coupon

You save belt costs because belts last longer, save production costs because machines keep running with fewer interruptions, save maintenance costs because they need less attention.

Patented grommet belts by B. F. Goodrich represent the only basic change since invention of the V belt. Belts last 20 to 50 per cent longer, depending on service. (The more severe the service, the greater the increase over ordinary belts.) Grommet belts have more rubber; they're more flexible, give better grip, less slip.

What is a grommet?

A grommet is like a giant cable except that it's *endless*—a cord loop built up by winding heavy cord on itself. There is no overlapping cord *section* as in all ordinary belts. Most belt failures occur in these sections where cords overlap!

All cords put to work

Each of the two grommets and every part of a grommet carry their share of the load. In ordinary belts under high tension the center cords "dish" because tension is greater near the driving faces. Dished cords are doing less work, not pulling their share. Grommet belts have no center cords, there is no dishing—therefore much more strength in proportion to cord volume—and less stretch. Grommet belts stretch, on an average, only about one-third as much as ordinary belts.

Better grip, less slip

Grommet belts have more rubber in relation to belt size. Without any stiff overlap, they're more flexible, grip pulleys better. Size for size, grommet belts give ⅓ more gripping power, pull heavier loads with a higher safety factor. Because there is less slip, there is also less surface wear.

Send for proof

Send the coupon for a set of reports telling users' experiences and showing actual installations where grommet belts outlasted all others. Some typical cases:

". . . within a few days ordinary belts had stretched . . . After six months of 24-hour-a-day service BFG grommet belts haven't stretched at all . . ."

"Ordinary belts lasted only 5 or 6 weeks . . . B. F. Goodrich grommet belts are in their sixth month of service . . ."

"Previous belts suffered from shock loads, wore out fast . . . BFG grommet belts have been in service 2 years with no shut-downs..."

There are hundreds of cases like these.

They cost no more

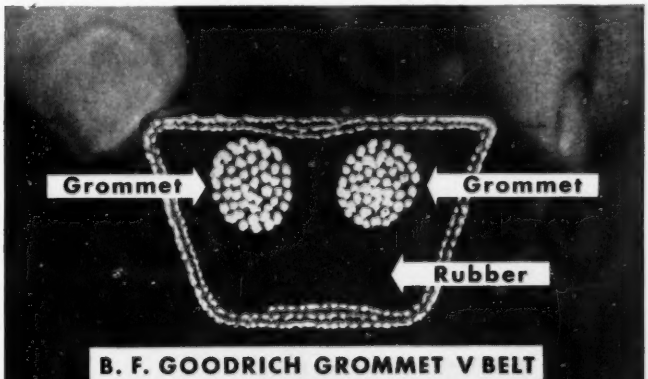
BFG grommet belts cost not one cent more than others. The savings they make for you are clear profit. They are made in C, D and E sections. They are patented by B. F. Goodrich. No other V belt is a grommet belt (U. S. Patent No. 2,233,294).

Write, send the coupon or see your B. F. Goodrich distributor. (He will show you his "X-ray" belt that shows the grommet construction clearly.)

Grommet V Belts BY

B.F.Goodrich

FIRST IN RUBBER



The B. F. Goodrich Company
Dept. TI-2
Akron, Ohio

☐ Send set of reports telling users' experiences and showing actual installations proving that B. F. Goodrich grommet belts outlast all others.

☐ Have distributor show me the "X-ray" belt that shows how B. F. Goodrich grommet belts are made.

Name_____

Firm Name_____

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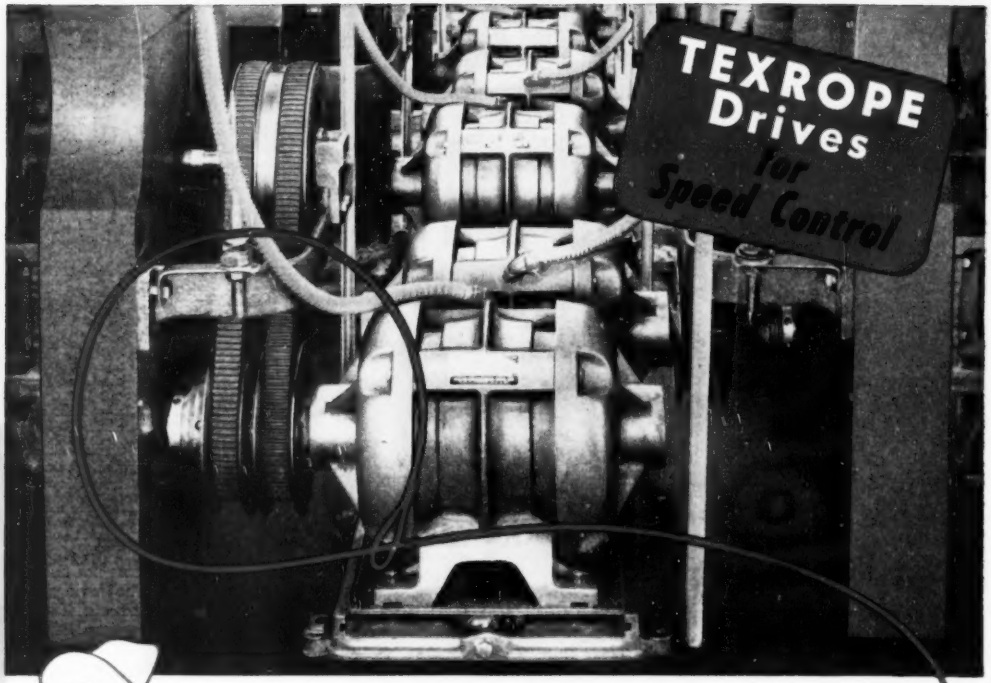
Street Address_____

City_____

State_____



TEX SAYS: Speed Control Can Cost So Little USING VARI-PITCH DRIVES

ASK ABOUT *Vari-Pitch* drives! Whether you want to change speeds while your machine is in motion or stopped, there's a low cost *Vari-Pitch* drive for the job.

You'll find a *Vari-Pitch* sheave used with a standard motor can often give the same smooth, stepless speed control as a multi-speed motor or expensive control costing many times more.

For example, many textile mills are using *Vari-Pitch* sheaves to make the delicate speed adjustments they require when yarns are changed. This means mills can achieve a degree of modernization with this one low-cost changeover. Other industries are enjoying similar benefits.

It's especially low cost when you remember old motors need not be replaced by special motors or control. To get variable speed with *Vari-Pitch* drives, only the sheaves need be changed. Take a tip from these mill operators. Check into *Vari-Pitch* drives.

GO TO V-BELT DRIVE HEADQUARTERS — Allis-Chalmers has the widest range of variable speed drives in the industry. Moreover, you can be sure your job is figured right if you get your drive from Allis-Chalmers, for more industrial V-belt drives have been engineered by A-C than by any other company.

Call your nearby Allis-Chalmers distributor or district office, or write Allis-Chalmers, Milwaukee 1, Wisconsin.

A-3589

Choose from These Types of Variable Speed Drives

VARI-PITCH SHEAVES for A-B, B, C, D, and E belts — speed variation 15% to 25% per sheave. Capacities 1 to 125 hp. Stationary type — for changing speed when motor is stopped. Motion Control type — for changing speed when motor is running.

WIDE RANGE *VARI-PITCH* SHEAVES for Q or R wide belts provide up to 2 to 1 speed range . . . fractional to 40 hp. Available in Stationary Control and Automatic types.

***VARI-PITCH* SPEED CHANGER** — enclosed unit for adjusting speed while machine is in motion. Provides up to 3.75 to 1 speed range. Capacities 1 to 75 hp.

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ALLIS-CHALMERS

Hear about the Whip Roll that wouldn't STAY whipped?

Thanks to Walhard Chromium Plate!

THE LEADING NAME

IN TEXTILE

HARD CHROMIUM PLATING!

This whip roll was just about done in! He was stained with corrosion, battered by wear . . . and his boss claimed he was costing the firm money and was ready to count him out!

But did he give up? No sir! He fought back. He asked the boss for a day off and hied himself off to Walton and Lonsbury. WALHARD gave him a new lease on life . . . a superior hard chromium plated finish. Result: He went back to his job a new, efficient whip roll, equipped to really deliver!

DON'T WAIT FOR YOUR PARTS TO SPEAK FOR THEMSELVES!

It just won't happen! *Stop* production waste! Stop expensive part replacement costs. As a matter of fact, why not order plated rolls on your new machines. Call Walton and Lonsbury *NOW!* You'll be calling the best hard chromium plating outfit in the business!

W&L WALTON and LONSBURY

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Announcing...
Genuine
SACO-LOWELL PARTS
now immediately available
through our

NEW REPAIR PARTS DEPOTS
IN CHARLOTTE & BIDDEFORD

To assure you of better service, Saco-Lowell has organized a new system of producing and delivering replacement parts. The depots at Charlotte and Biddeford are well stocked with parts most commonly required, as determined by actual mill surveys. Direct Teletype communication reduces the time necessary when parts must be ordered from the Production Departments of the Shops. We urge you to join other mills in taking advantage of this special service.

Illustrated above are the depots and offices at Charlotte, N. C. and Biddeford, Maine.

BETTER PARTS • BETTER SERVICE

SACO-LOWELL

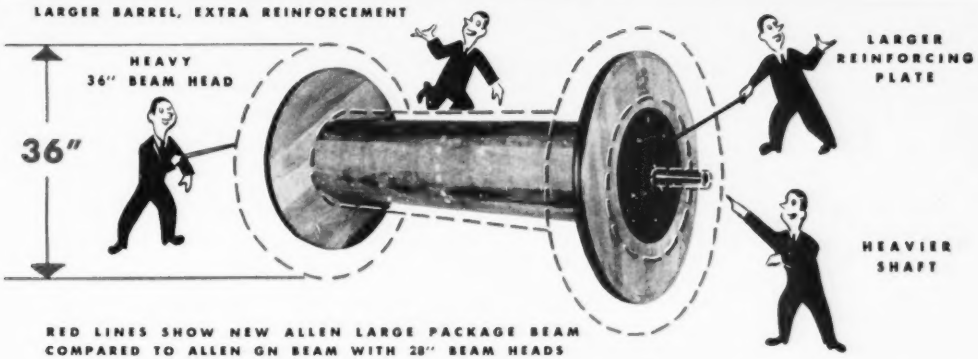
60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD, MAINE and SANFORD, N. C.

SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA

ALLEN *announces:*

A BEAM WITH 80% MORE CAPACITY



RED LINES SHOW NEW ALLEN LARGE PACKAGE BEAM COMPARED TO ALLEN GN BEAM WITH 28" BEAM HEADS

Fewer beams – less maintenance – less handling – longer runs without changeovers; *these are distinct savings with the new* ALLEN TYPE M LARGE-PACKAGE BEAM– *WITH GENUINE ALLEN BEAM HEADS.*

Allen offers its new large-package beam, made possible by time-proven Allen principles of construction. This beam successfully withstands the compression and end thrust of synthetic yarn build-up. It is engineered to "take" rough handling with these heavy loads. Specify these Allen beams with complete confidence — as always.

Send for Illustrated Booklet

ALLEN
BEAM COMPANY
High Speed Warper Beams
Warper Beam Heads
Loom Beams
Adjustable Loom Beam Heads

General Offices – 151 River Road
New Bedford, Mass.

Representatives in all Textile Localities and all Principal Countries of the World.

"Good Warps are made on Good Beams"

How can you be sure you're getting the most lap-resistant cover?

One sure way to find the most lap-resistant cot is, of course, to try all the new covers in your mill. A short cut to the same result may be found, however, in a simple laboratory test. It's an accelerated test that takes only seconds to perform, yet its results have been confirmed time after time by actual mill experience.

Here's how the test works. First, the cot to be tested is put on a frame section from which both the scavenger roll and clearer have been removed. An end is put up and the frame operated at many times its normal speed.

A technician then breaks the end and, with a stop watch, times how long the cover lets the end run before picking it up. Eventually, air currents and other factors will cause the end to lap up on any cover. But, obviously, the longer the end runs free, the better chance it would have in a mill of going down on the scavenger roll . . . and so, the better the lap resistance of the cover under test.

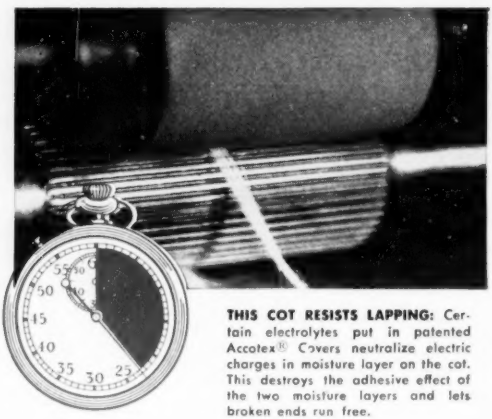
In hundreds of such tests, Armstrong's Accotex Covers consistently prove to have more lap resistance than any other cover tested.

The reason? Accotex Covers are made with an exclusive formula. Each Accotex Cover contains certain "electrolytes" . . . special patented ingredients that eliminate the principal cause of lapping . . . the normal attraction between fiber and roll cover.

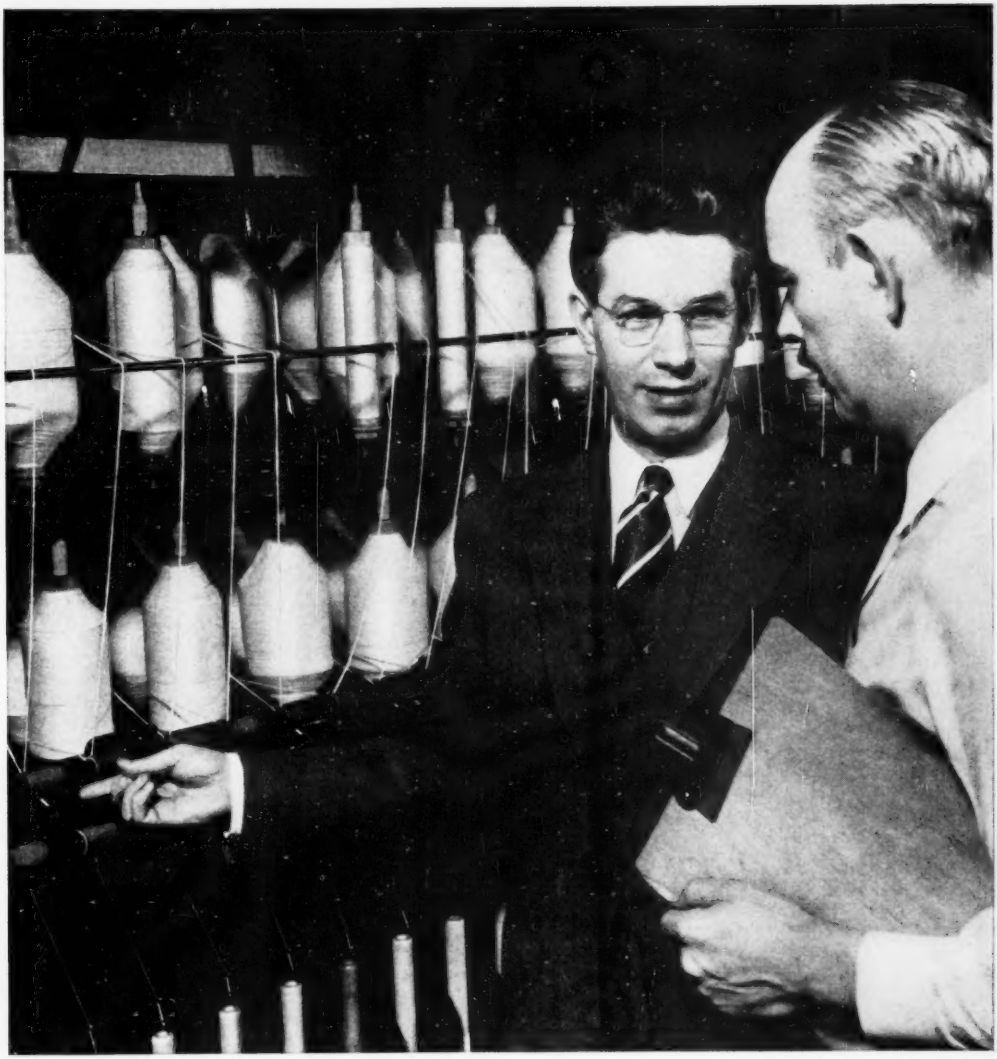
Final proof of these covers is the testimony of hundreds of mill men across the country who tell us that Accotex Roll Covers are the most lap resistant they can put on their frames.

Armstrong makes a complete line of patented Accotex covers. Whether you spin cotton, wool, synthetics, or blends, your Armstrong representative can suggest the right lap-resistant cover for your work. Call him today or write Armstrong Cork Co., Textile Products Dept., 3602 Arch St., Lancaster, Pa., Available for export.

THIS COT LAPS: Microscopic moisture layers on fiber and cot each contain electric charges. When pressed together, the attraction between the two moisture layers has the effect of adhering fibers to cot, causing ends to lap up.



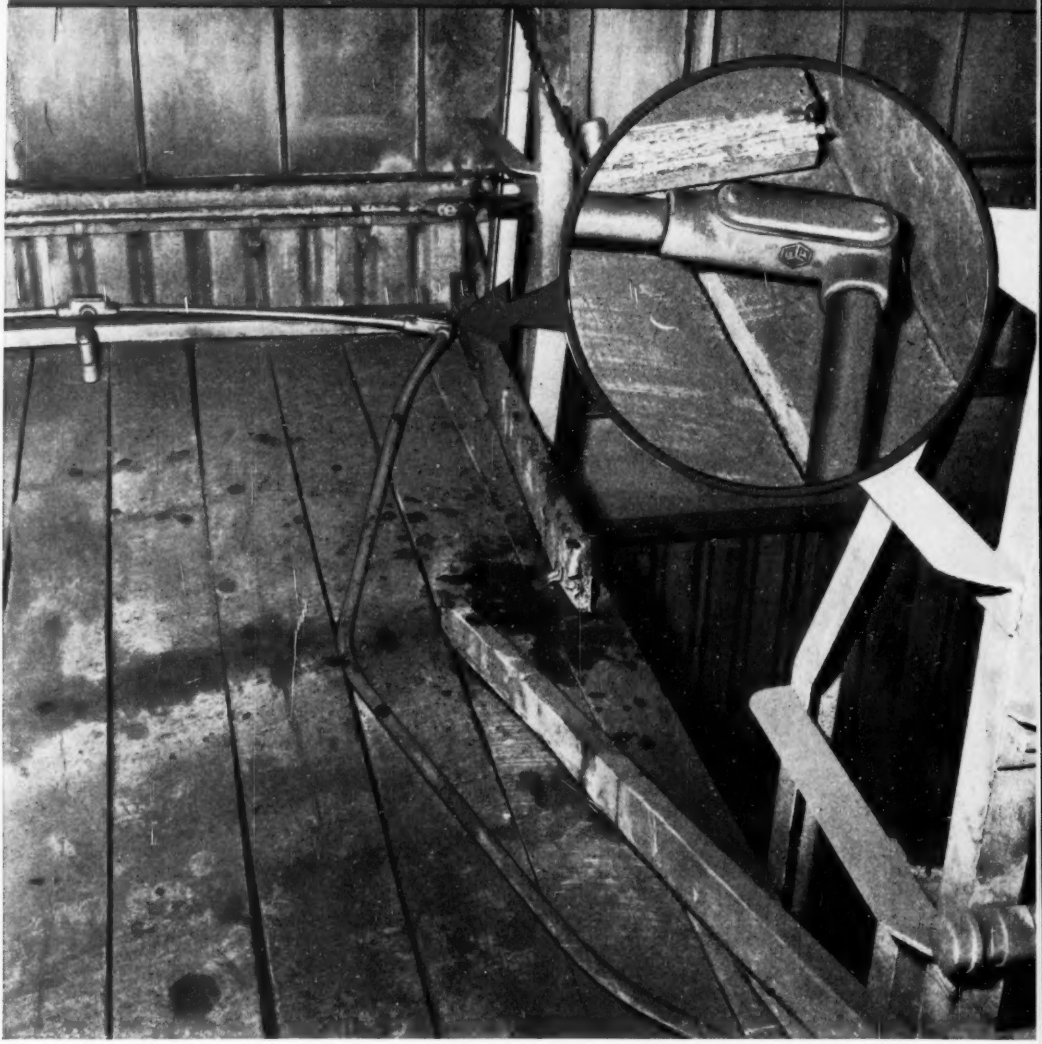
THIS COT RESISTS LAPPING: Certain electrolytes put in patented Accotex® Covers neutralize electric charges in moisture layer on the cot. This destroys the adhesive effect of the two moisture layers and lets broken ends run free.



WHEN AN END BREAKS, will the cover let the yarn run free long enough for it to go down on the scavenger roll? Tests in our laboratories, backed by mill experience, show that many covers will not. They lap up within a split second. On the other hand, Armstrong's Accotex Cots consistently let broken ends run longer than other covers tested and so reduce lapping to an absolute minimum.

ARMSTRONG'S ACCOTEX COTS

The CONDULET* and rigid



Photograph of an actual case which proves the protective value of CONDULETS and rigid conduit. In an iron foundry, the conduit was accidentally hit by a heavy bucket full of iron, which bent it 21½ inches out of alignment and exerted a heavy strain on the CONDULETS. The CONDULETS withstood the pressure and there was:

NO distortion of the CONDULET. Cover remained tight
NO interruption of electrical service
NO shutdown
NO lost production

*CONDULET is a coined word registered in the U. S. Patent Office. It designates a product made only by the Crouse-Hinds Company.

CONDULETS • TRAFFIC SIGNALS

conduit method gives you the
UTMOST PROTECTION
to electrical conductors

To maintain continuous production, it is important that all electrical wiring be protected against accidental mechanical damage which might result in costly shutdowns. Crouse-Hinds cast Feraloy **CONDULETS** and rigid conduit give you the best possible protection to electrical wiring and equipment.

The illustration at the left is an actual photograph of the kind of accident that is not uncommon in industry. Traveling cranes, electric trucks, or other heavy moving equipment frequently strike the electrical system. **CONDULETS** and rigid conduit can protect your electrical installations from damage by such accidents.

Remember . . . it pays to give your electrical system the protection that is only provided by the **CONDULET** and rigid conduit method.

Other Definite advantages

- **MECHANICAL PROTECTION.** Crouse-Hinds sturdy cast Feraloy CONDULETS and rigid conduit provide the best possible protection against accidental damage to the wiring and equipment. Prevents costly shutdowns.
- **FLEXIBILITY.** A modern CONDULET installation provides for growth and changing conditions. CONDULETS with detachable hub plates can be used to make it easy to change circuits or add new ones.
- **ECONOMY.** The installed cost of Crouse-Hinds CONDULETS and rigid conduit compares favorably with other wiring methods. The added advantages make it the really economical method that pays dividends over the years.
- **UNIVERSAL APPLICATION.** You can install galvanized CONDULETS and galvanized rigid conduit under all atmospheric conditions and in all occupancies.
- **CORROSION RESISTING.** Cast Feraloy CONDULETS give the best protection wherever moisture, dust, or corrosive atmospheres are present.
- **QUALITY.** The trademark CONDULET stands for the highest quality, reliability, and long life.
- **VARIETY.** More than 15,000 items are listed in the CONDULET Catalog, including a complete explosion-proof and dust-tight line for use in hazardous locations.

On YOUR next electrical layout, plan to get all the benefits of sturdy cast Feraloy **CONDULETS** and rigid conduit . . . the universal wiring method.

A Nationwide Distribution Through Electrical Wholesalers

CROUSE-HINDS COMPANY
Syracuse 1, N. Y.

OFFICES: Albuquerque—Birmingham—Boston—Buffalo—Chicago—Cincinnati—Cleveland—Dallas—Denver Detroit—Houston—Indianapolis—Kansas City—Los Angeles—Milwaukee—Minneapolis—New York Philadelphia—Pittsburgh—Portland, Ore.—San Francisco—Seattle—St. Louis—Washington.
RESIDENT REPRESENTATIVES: Albany—Atlanta—Baltimore—Charlotte—New Orleans—Richmond, Va.
Crouse-Hinds Company of Canada, Ltd., Toronto, Ont.

CONDULET — First in the field — STANDARD OF QUALITY

AIRPORT LIGHTING • FLOODLIGHTS

NEED DEPENDABLE ALTERNATE MATERIAL including QUICK TOOL-UP and DELIVERY?

OILITE CAN HELP YOU NOW

Oilite Finished Machine Parts — with **NO** Machining

Here's how:

Oilite finished machine parts provide dependable replacements for bronze, brass, aluminum, cast iron, steel, and plastics. Frequently, replacements are permanent.

Oilite Material

Many Oilite raw materials, i.e., metal powders, are produced from by-products, readily available.

Tooling

Using Oilite finished machine parts, you save

- Tooling programs
- Tool Design
- Machine Tools
- Jigs and Fixtures
- Cutting Tools
- Gages
- Floor Space
- Skilled Manhours

Amplex type tools are, by comparison, inexpensive. Tool and die making facilities are available.

Delivery

Making Amplex tools generally requires only days or weeks and no additional machines.

Case Histories

Under conditions like today's we were in quantity production within six (6) weeks or less compared to eighteen (18) months by other processing.

Service

Our engineering and research covers a period of more than twenty (20) years in the production of Oilite metal powder products.

Home office personnel is augmented by a large staff of field engineers located in principal cities of the United States and Canada.

AMPLEX MANUFACTURING COMPANY
Subsidiary of Chrysler Corporation
DETROIT 31, MICHIGAN

OILITE PRODUCTS

OILITE PRODUCTS INCLUDE heavy-duty, oil-cushion, self-lubricating, ferrous-base bearings; Oilite bronze* and other nonferrous* bearings; self-lubricating cored* and bar* stock; permanent filters; and friction units.

Field Engineers and Stocks in principal U.S. and Canada

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YOUR KNOWLEDGE OF BOBBINS

this Easy Way

Write today for this Lestershire book which contains 29 large clear photographs of different types of aluminum, magnesium, and fiber bobbins. Each photo is accompanied by an informative story concerning the bobbin illustrated.
This book and the individual bobbins portrayed are the outcome of years of careful research and experience—experience gained from the Lestershire policy of considering each installation as "specialized." This policy has assured Lestershire bobbin users of the maximum of satisfaction, as the bobbins are properly fitted to the use and operating conditions.
You'll want to keep this book on file for ready reference; so use the handy coupon below.

LESTERSHIRE SPOOL & MFG. CO.

Subsidiary of National Vulcanized Fibre Co.

LESTERSHIRE BOBBINS EVERLASTING

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POSITION .....

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"Tycol Alweave cuts power consumption... lessens tube loss... lowers equipment down time"

Check! Tycol Alweave Textile Oils reduce thread breakage —hold spindle drag and bolster losses to a minimum. Their high stability and easy scourability let mills operate at top production speeds, with far fewer stoppages.

Specially designed Tycol Alweave Oils are available in a wide range of both mineral and compounded grades. They'll step up efficiency in every mill process.

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You manufacture fabrics, but your customers *buy* colors, perhaps 7 times out of 10, and the *quality* of those colors influences fabric sales.

Use Franklin Process Colors and "keep your fabrics sold". These colors are backed by more than 40 years of experience and the largest yarn dyeing organization in the world.

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LARGEST PACKAGE DYERS IN THE WORLD

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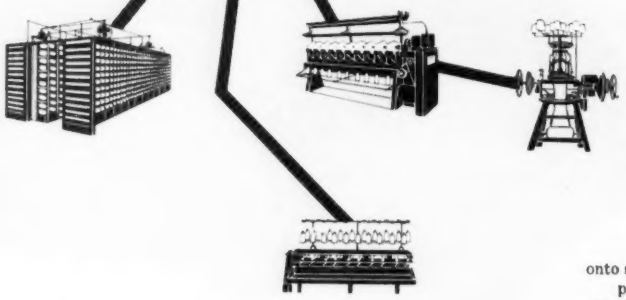
FASTEST, SAFEST ROUTE

***Eliminates* doubling . . .**
***avoids* costly delays**

Spinning frame bobbins of cotton, worsted, spun rayon, spun nylon and blends are used as supply for the Leesona Roto-Coner* which winds at high speed and inspects the yarn *in the singles.*

Large cones are used as an *overend* supply on the Model 10 Ring Twister. Here, the automatic stop motion for each end in the ply stops the spindle and feed roll instantly when an end breaks or runs out.

Because ends have been tied *in the singles,* rather than in the ply, the knots are smaller, reduce stops at the loom or knitting machine, save burling and mending costs. Also, the twister package contains no drop ply.



Plied yarn from the large twister packages is wound on the Roto-Coner* onto sales yarn packages with minimum piecing-up . . . or can be used as a direct supply to filling winders or in warping creels.

23.1.9

Roto-Coner*
The Winder with the Rotary Traverse

*Reg. U. S. Pat. Off.

UNIVERSAL WINDING COMPANY

Atwood Division • P. O. Box 1605, Providence 1, R. I.

Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles; Montreal, Hamilton; Manchester, England; Paris, France; Basle, Switzerland

Agents in every principal textile center throughout the world

Winding and Twisting Machinery for Natural and Synthetic Yarns

LEESONA
ATWOOD

Model 10
Automatic Stop Motion for Each End and Ply

Shiners and crows'-feet on acetate fabrics and blends can be done away with effectively by the use of AES* in the dye bath.

The lubricating qualities of this dyeing assistant put fibers in condition to resist other mechanical abrasions besides shiners. Its levelling action is highly effective in the elimination of crows'-feet.

ALIPHATIC ESTER SULFATE*. . .

is an all-around dyeing assistant, working equally well in alkaline and acid dye baths. It is used in dyeing cotton and rayon, acid dyeing of wool, and acts as an efficient retardant in wool and half-wool dyeing. It can be used at boiling temperatures without decomposition, and shows good stability in salt solutions and in hard water.

*Write for the Technical Data Sheet on AES.**

*Trade Mark Reg. U.S. Pat. Off.

onyx CHEMICALS FOR DYEING · FINISHING · PRINTING

ONYX OIL & CHEMICAL COMPANY
TEXTILE DIVISION
WARREN & MORRIS STS., JERSEY CITY 2, N. J.
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U.S.A.
REST OF WORLD
1,292
POUNDS OF STEEL PER PERSON PRODUCED IN 1950 UNDER U.S. COMPETITIVE SYSTEM BY OUR 253 STEEL COMPANIES
97
POUNDS OF STEEL PER PERSON

FORTY YEARS AGO the automobile was a rich man's toy. TV and radio were unheard of. Refrigeration? You hung a card in the front window to signal the ice man.

Today we drive 40 million cars, listen to 90 million radios, keep food in 33 million refrigerators.

Yet millions in the rest of the world are still groping in the primitive darkness of 40 years ago.

Why have we moved ahead? Competition is a chief reason. Only competition in business has made luxuries commonplace in your home today. Competition, for example, in the production and sale of steel and things made out of steel.

Steel makes progress possible—in war or peace . . . in the manufacture of everything from tableware to tanks, razor blades to skyscrapers, baby carriages to "Big Mo".

How well does this competition of ours work in the steel business?

. . . The U.S.A. shows an 83.4% gain in steel output between 1939 and 1950. The rest of the world shows an 0.8% loss.

. . . In 1939, the U.S.A. under "competition" made $\frac{1}{3}$ of all the world's steel. Today we produce half—all with only 6% of the people in the world.

. . . Steel workers under "competition" gained in jobs, too. There were 449 thousand jobs in 1939. Today—637 thousand.

The steel industry is just one example of how a free competitive system works. Ours is the security millions of people in the world dream of when they embrace such dead-ends as "planned economies".

Look around and see what happens when people hand their jobs and factories over to the government. Or have them taken by law. Or by force. Name it what you will—"communism", "nationalization", "socialism","regimentation"—it is a one-way street, and no turning back. By then people no longer own government. Government owns the people.

• • •

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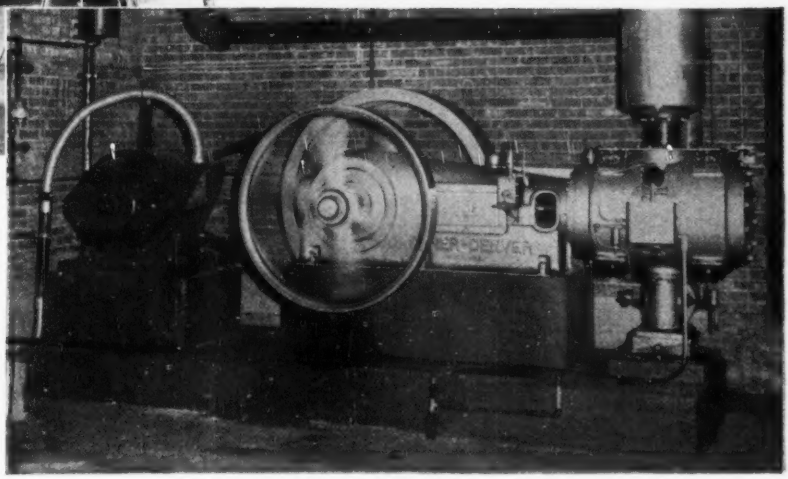
THE COMPETITIVE SYSTEM DELIVERS THE MOST TO THE GREATEST NUMBER OF PEOPLE

Unrestricted Flow



Gardner-Denver RX Single-Stage Compressors are made in a wide range of sizes to assure the right pressure and capacity for your needs.

. . . another reason why GARDNER-DENVER RX compressors save you money!

Free and easy! That's the way air flows through the large, unrestricted valve and port areas in the Gardner-Denver RX Compressor. That means the RX uses less power to supply the compressed air you need—and there you have one of the big reasons why an RX costs less to operate.

Other money-saving RX features include the dust-tight, heavy-duty power end—automatic lubrication—and "Air-Cushioned" Duo-Plate valves. Write today for additional information.

SINCE 1859

GARDNER-DENVER

Gardner-Denver Company, Quincy, Illinois
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Birmingham, Ala. Washington, D. C. Philadelphia, Pa. New Orleans, La.

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS

No Place for LINT IN THIS MOTOR!

ALLIS-CHALMERS Quick-Clean MOTORS

LINT CAN'T GIVE YOU MOTOR TROUBLE when you use *Quick-Clean* Textile Motors because these motors are built to operate in the thickest atmosphere without being affected by lint and dirt.

Quick-Clean Motors are equipped with sealed bearings which are not affected by lint, require no periodic maintenance and will not leak grease to collect lint or soil materials. For more details on why *Quick-Clean* Motors are better for your mill, call your nearby Allis-Chalmers Authorized Distributor or District Office or write Allis-Chalmers, Milwaukee 1, Wisconsin for the bulletins shown below.

A-3576

Quick-Clean, Texrope and Vari-Pitch are Allis-Chalmers trademarks.

1. LARGE AIR INLETS

supply plenty of fast-moving air to carry air-borne lint and dirt right through the *Quick-Clean* Textile Motor. All corners are rounded and surfaces smoothed so that lint cannot catch or settle. Bearing end shields are open all around except for bearing cap support ribs.

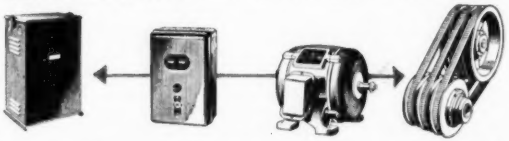
MATCH *QUICK-CLEAN* MOTORS WITH A-C STARTERS!

This control was developed for dependable, safe starting of *Quick-Clean* motors. Other Allis-Chalmers motor control will give you dependable operation of all electrical equipment in your plant. Competent application engineers are always available through your nearby Allis-Chalmers Sales Office.

Send for Free Literature

Quick-Clean Textile Motors	51B6055
Texrope Drives	20B6051
Vari-Pitch Sheave	20B7499
Dielectric Heater	15B6431
Power Generating Equipment, Transformers, Circuit Breakers, Power Distribution Equipment	25B6150

COMPLETE SERVICE — from Power Line to Machine



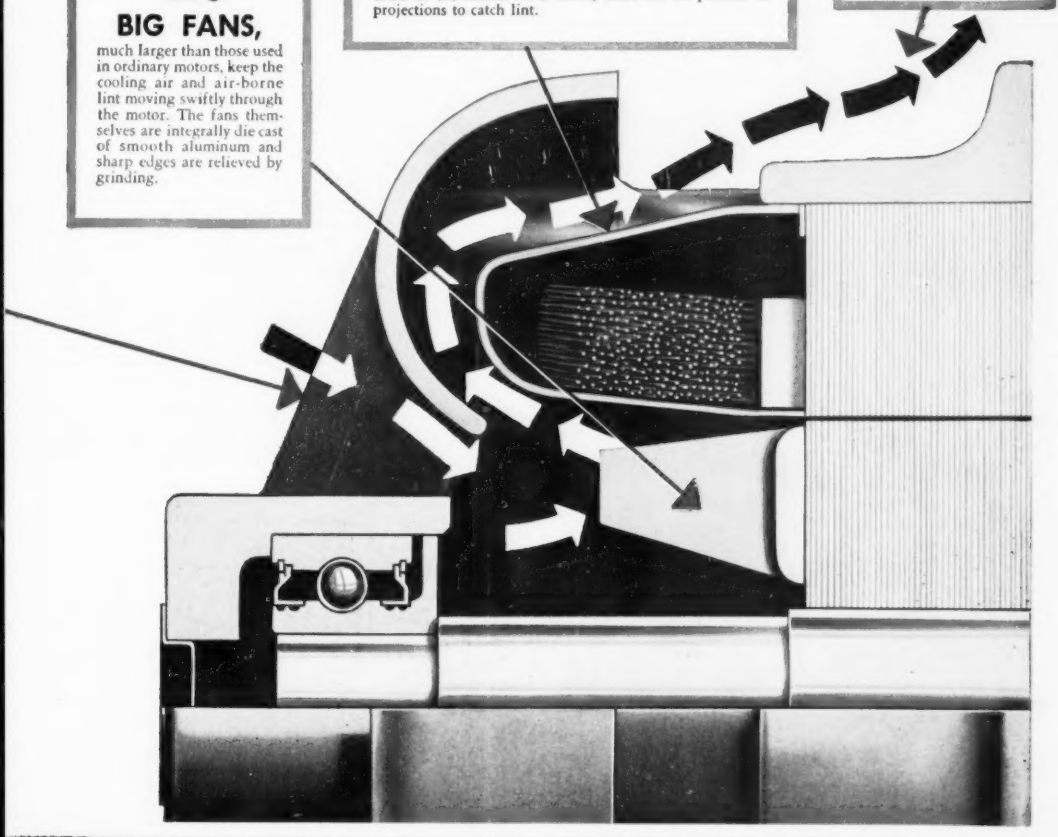
Transformers **Motor Control** **Motors** ***Texrope* Drives**

to Hide

2.
BIG FANS,
much larger than those used in ordinary motors, keep the cooling air and air-borne lint moving swiftly through the motor. The fans themselves are integrally die cast of smooth aluminum and sharp edges are relieved by grinding.

3. ENDS OF THE STATOR COILS ARE SHIELDED.
Bakelite shields completely enclose coil ends and blend smoothly, with the help of plastic cement, into the contours of the frame. As a result, there are no pockets or projections to catch lint.

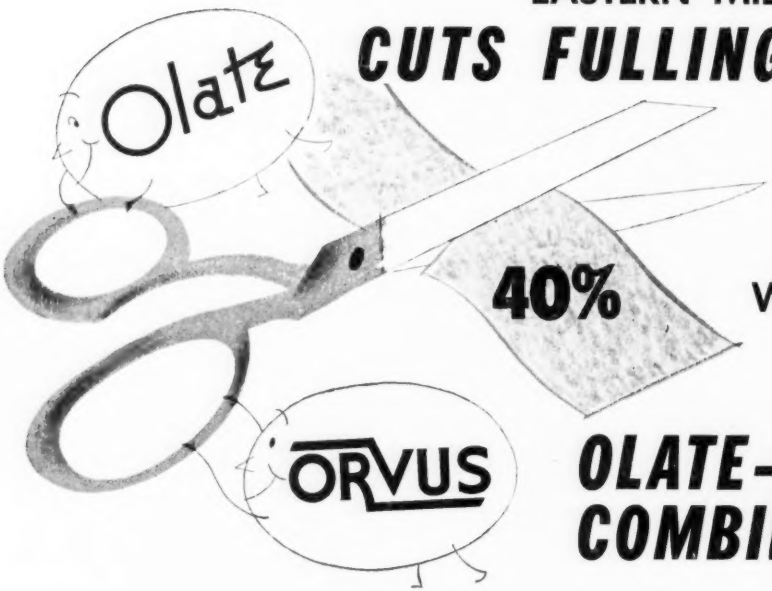
4
AIR OUTLETS ARE LARGE.
Except at supporting ribs, the circumference of each end shield is open. End shields and yoke are shaped to aid air flow and keep air velocity high. Central rib directs air stream away from motor to prevent recirculation of heated air.



ALLIS-CHALMERS

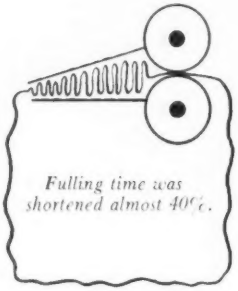
Originator of the Multiple V-Belt Drive for the Textile Industry

EASTERN MILL CUTS FULLING TIME 40% WITH OLATE-ORVUS COMBINATION

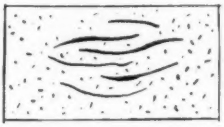


"How can we get better body for our overcoating fabrics?" a prominent Eastern woolen mill operator asked our Textile Research Department recently.

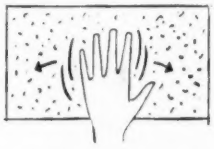
We recommended a blend of Olate and Orvus ES Paste for their fulling and scouring operations. The results were exceptionally good. The mill got the better body it was after—and several other "plus" advantages!



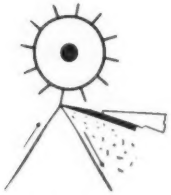
Fulling time was shortened almost 40%.



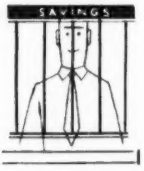
Wrinkles were eliminated.



Crocking and flocking were reduced.



Body was maintained throughout dry finishing.



And there were 20% savings in processing costs.

Have you tried Olate and Orvus ES Paste? These two time-tested products may show equally amazing results in *your* mill.

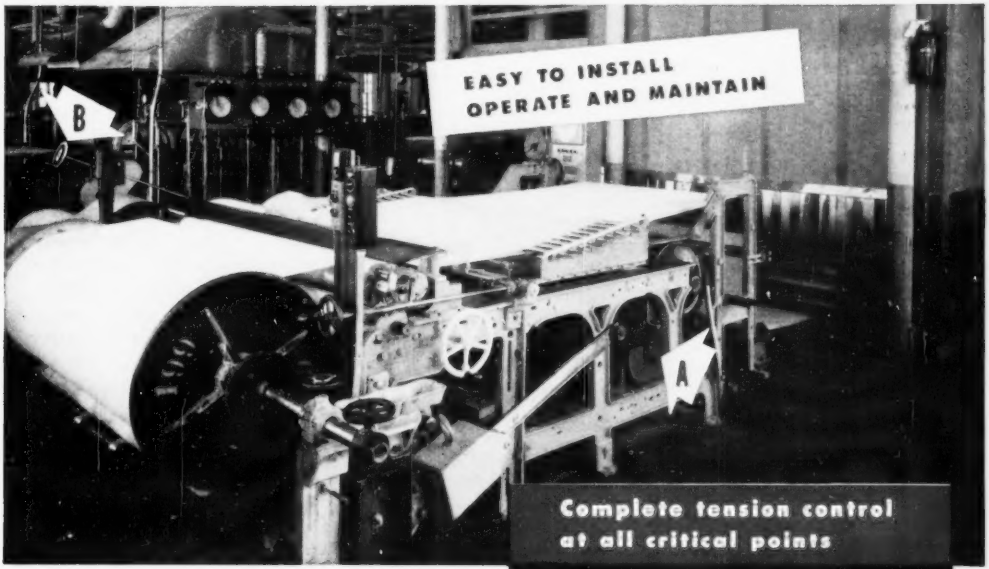
TEXTILE FINISHES SALES DEPARTMENT
CINCINNATI, OHIO

PROCTER & GAMBLE

MAKERS OF OLATE, ORVUS, PROXOL AND PROFINE

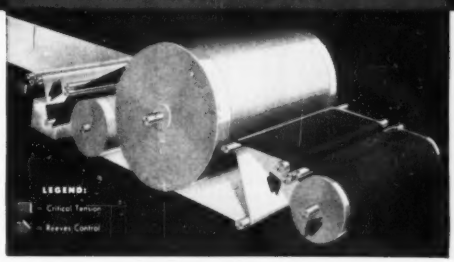
Build Better Beams with...

REEVES "Servo-Control" Slasher Drive



Arrow "A": The Complete Slasher Drive "nests" neatly beneath slasher head-end frame. Arrow "B": Handwheel—for setting Beam drive to maintain desired yard tension.

Complete tension control at all critical points



Add up all these quality-improving, money-saving advantages of REEVES "Servo-Control" Slasher Drive:

1 Finger-tip control from creep to run speeds by push button.

2 Smooth acceleration and deceleration through 15:1 speed range.

3 Quick, accurate, positive control of running speeds—without fluctuation—either manually or automatically tied in with moisture control.

4 Automatic, uniform tension regulation as beam builds.

5 Low initial cost; easily maintained by your mill mechanics; no complicated electrical hook-ups.

6 "Nests" under slasher head-end frame.

It will pay you to get the complete story right away. Send for bulletin No. T63b-S.

accurate · variable
REEVES *Speed Control*

REEVES PULLEY COMPANY • COLUMBUS, INDIANA
Recognized leader in the specialized field of speed control engineering

MAKE YOUR BALING A *Profitable* OPERATION *with a* LOGEMANN BALER

Tell Us Your Baling Problems

THAT'S the best way to get the right answers to low-cost time-saving baling. During our sixty years of building balers for the textile industry we've solved many a baling problem for factory owners. Our engineers know how to make baling operations pay their own way in time and labor-savings, in speedier, more reliable handling of bales, in lower maintenance costs. Many Logemann balers have been in profitable operation since the turn of the century—evidence of the ruggedness, durability, and long service life of Logemann baling presses.

In the interests of better baling operations in your factory, find out what Logemann balers can do for you. Tell us what your specific problem is. We'll gladly show you how it can be answered in terms of better bales at lower costs and make a specific recommendation based on your requirements. Write for information today.

Open balers for finished goods may be hydraulic or power-driven. Give platen dimensions required, maximum height of pile to be compressed, number of bales per hour, when requesting information on open balers.

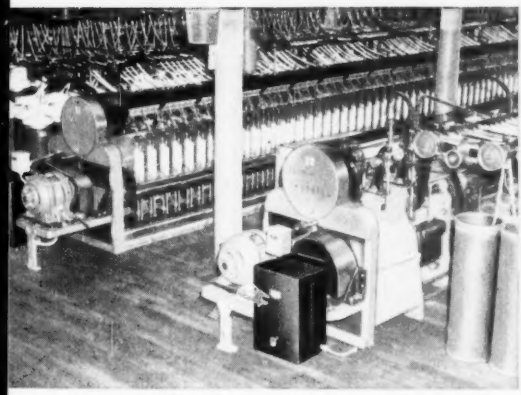
Box balers for waste may be obtained in either the hydraulic or power-driven type. Mention the kind of waste to be baled, how much in how many hours, the preferred size or weight of bale when inquiring about box balers.

LOGEMANN BROTHERS CO.

3100 West Burleigh Street • • • Milwaukee 10, Wisconsin

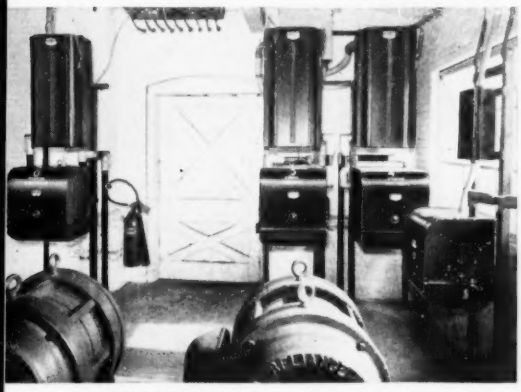
CUTLER-HAMMER

MOTOR CONTROL FOR THE TEXTILE INDUSTRY

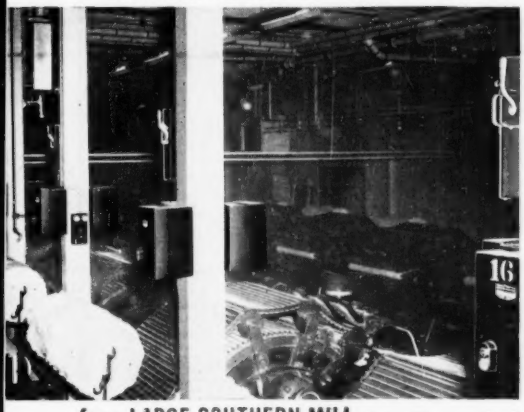


for FISHER at Fisherville, Mass. Cutler-Hammer Primary Resistance Starters are used to provide smooth starting as well as constant protection on these roving frames.

for EXPOSITION at Atlanta. Not only are Cutler-Hammer Card Controllers used on these individual motor driven cards, but Cutler-Hammer Motor Control is used throughout the plant.



for EDDYSTONE at Eddystone, Pa. Cutler-Hammer Safety Switches and Autotransformer Type Manual Starters stand guard over the performance of m.g. sets for cloth printing machines. Cutler-Hammer control widely used here.



for a LARGE SOUTHERN MILL. Cutler-Hammer Card Controllers are standard equipment in this great mill in North Carolina.

Ask the men who know

Cutler-Hammer Motor Control is the natural choice of men who know *both* textile industry requirements and comparative motor control performance. They know Cutler-Hammer dependability is not a mere competitive claim but a fact that can stand out clearly in a mill's production records to reflect favorably on their own ability and good judgment. They also know that Cutler-Hammer dependability is not an occasional happenstance ... that it is the direct result of the longest and most intensive specialization in motor control engineering. And they know Cutler-Hammer dependability can safeguard *all* of their motor control needs, that Cutler-Hammer can furnish *any* type of control required ... from the simplest starters to the most complex electronic equipment.

You too will find it pays to insist on Cutler-Hammer Motor Control and refuse all substitutes. An adequate network of Authorized Cutler-Hammer Distributors throughout the textile manufacturing areas insures prompt attention and supply. CUTLER-HAMMER, Inc., 1456 St. Paul Ave., Milwaukee 1, Wis.

CUTLER-HAMMER CARD CONTROLLER

With integral drum type reverse switch

Here in one self-contained unit is all the control needed for a card ... convenient pushbutton starting and stopping *plus* an integral reverse switch for cleaning and grinding. Card cannot be reversed accidentally or by any unauthorized person when controller case is padlocked. Easier to install. Easier and safer to use. Felt-gasketed against lint. Famous Cutler-Hammer Eutectic Element Overload Protection specially arranged to provide long starting time (required for cards) without loss of normal operating protection.

CUTLER-HAMMER
MOTOR CONTROL
C-H

L. F. Dommerich & Co., Inc.

Executive and General Offices

271 MADISON AVENUE

NEW YORK 16, N. Y.

Telephone: Murray Hill 3-8650

FACTORS

For Manufacturers and Merchants

Inquiries as to our services solicited

•

BUSINESS ESTABLISHED 1840

Faster

More Thorough Removal of LINT

WITH HANSEN COUPLINGS AND BLOW GUNS

Photo—Courtesy Harriet Cotton Mills

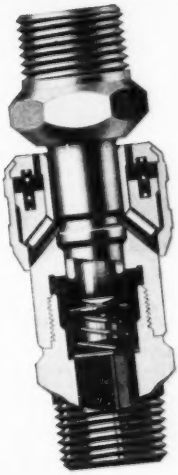
Socket
No. 5300

Hose Clamp Plug
No. 5-PP19

Hose Clamp
No. HC-2P19

Air Blow Gun
No. 25

10" Extension Nozzle
No. 26



● Lint and fly can be quickly removed from carding machines, spinning frames and looms through the use of Hansen quick-connective couplings and an Air Blow Gun.

By equipping conveniently located air stations with Hansen quick-connective couplings, it is a simple matter to move from station to station with a short hose and the Hansen Air Blow Gun.

To connect the air hose at any station, you merely push the coupling plug into the socket—air is instantly and automatically available at blow gun.

To disconnect, just push back sleeve on coupling socket—plug immediately releases and flow of air is shut off at station.

Change-over from air blow gun to solvent spray cleaner takes only a few seconds.

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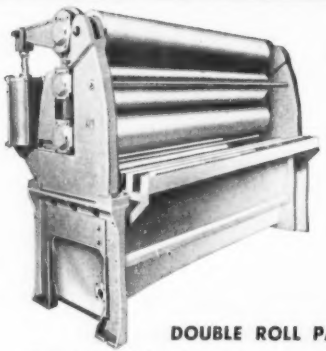
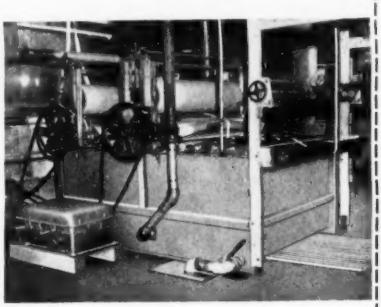
USE Fleet Line PADDERS



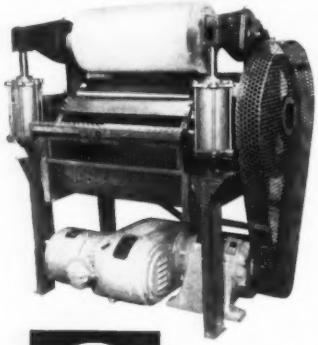
3-ROLL PADDER, TYPE AT-14

On unit shown here, face length of rolls is 100". All rolls are rubber-covered 14" diameter, mounted in heavy duty anti-friction bearings. Pneumatic equipment controls the pressure and also lifts the rolls out of contact with each other. Beneath the rolls is a stainless steel immersion tank with stainless steel immersion rolls, and the tub is also equipped with closed type heating coil. Double scrimp bars at entering side are standard, but in many cases a single expander roll is installed near the first nip in addition to scrimp bars.

DOUBLE ROLL PADDER, TYPE M2-14



On unit shown, face length of main squeeze roll is 60", diameter is 14". Top roll is rubber-covered, bottom roll stainless steel jacketed. Stainless steel tank has inside dimensions of 66" wide x 82" front to back x 36" deep. Stainless steel immersion and carrier rolls are arranged so that the cloth has 9 passes through the liquor before going through the first set of squeeze rolls, and thereafter has 8 additional dips before passing through the second set. Guiders are located at the entering side of the machine, and a single rubber expander roll just ahead of each set of squeeze rolls, to keep goods in open width and free from wrinkles. Driving unit for the first set of squeeze rolls is a variable speed unit driven from the main drive, which allows for perfect synchronization. Pressure equipment on the unit shelf is through coil springs, although this can be pneumatic if desired.



LABORATORY PADDER, TYPE FC

Rolls are 12" diameter x 24" face. Top roll is rubber-covered and bottom is stainless steel. All bearings are anti-friction. Permanent stainless steel tank beneath the main roll is equipped with stainless steel immersion roll, and auxiliary stainless steel tank can be put into and taken out of the machine as desired. Latter tank is used when bottom roll is required to rotate in the liquor. A Doctor Blade is furnished which can be attached on either the front or the back of the unit. Rubber scrimp bar is also incorporated in the machine, and variable speed unit is located underneath.

Additional types shown in our Padder catalog page. Send for your copy.

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stands Up and Out

All indications point to the continued popularity of taffetas as a high style item.

For that dry, crisp, swishy taffeta hand, from papery thin to pleasing softness, Standafin T Conc. provides the answer in finishing of taffetas, failles, shantungs, etc. Slip-proofing with no mark-off or effect on shade or luster are added features imparted by Standafin T Conc.

Application is made from an aqueous bath on conventional finishing equipment such as a quetsch or padder. No curing is required.

Our technical staff will be glad to demonstrate the advantages of using Standafin T Conc. for your taffetas.

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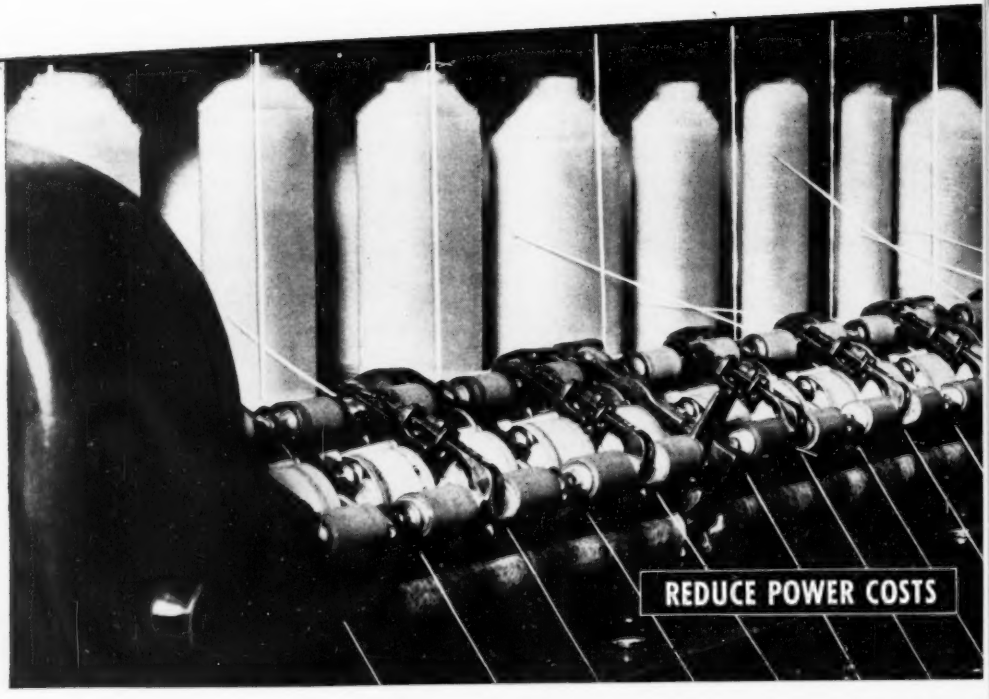
Tests Show How to CUT BOLSTER WEAR —Save Replacements

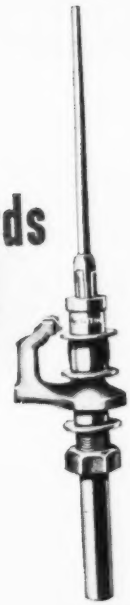


Two-year field tests show that Sinclair Compounded Lily White Oils, AX, BX, CX, cut bolster wear up to two-thirds!

This oil can thus save a lot of bolster replacements—especially important in these days of shortages. Less wear also means less spindle wobble, thus reducing power demand and thread breakage and permitting use of a larger package.

All together, these advantages make Sinclair Lily White Oils important assets to any textile mill.

2/3rds



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TEXTILE LUBRICANTS

Save Wear and Replacement

For lubrication counsel see your nearest Sinclair Representative or write direct to Sinclair Refining Company, 600 Fifth Avenue, New York 20, N. Y.

SAVE BOLSTERS—SHORTAGES ARE HERE

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Says
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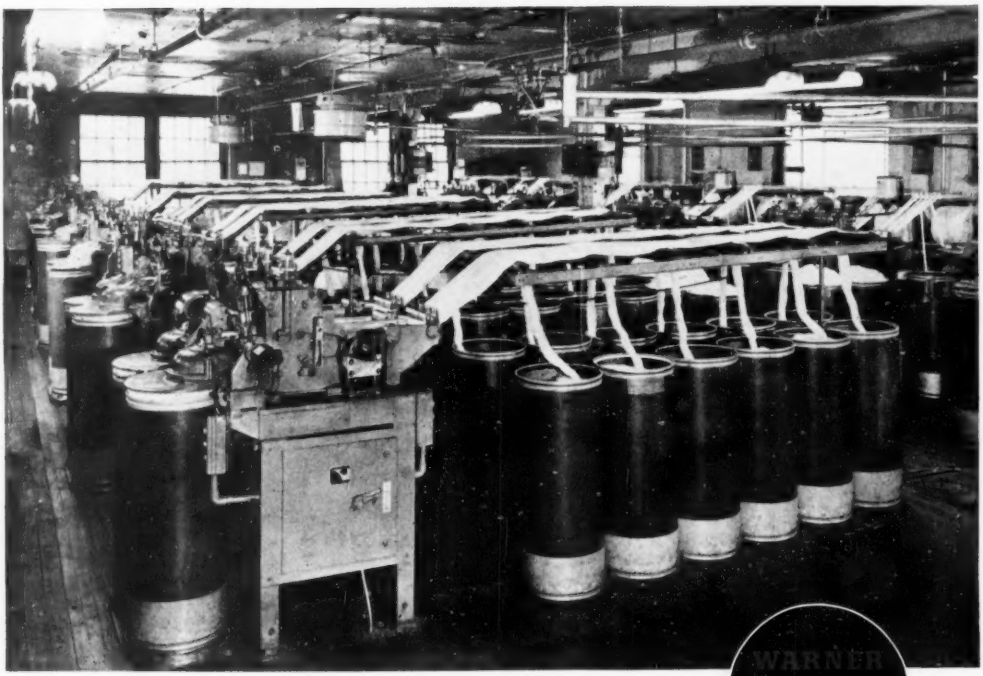

16 Warner & Swasey Pin Drafters in Drawing Department at The P. McGraw Wool Company, Pittsburgh, Pennsylvania. 6 Pin Drafters are also used in their Combing Department.

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TEXTILE MACHINERY DIVISION

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Twin-T Textile Machinery Cleaner is especially compounded for cleaning all types of machines and machine parts in the textile plant. Very economical to use because it's CONCENTRATED (1 part cleaner to 15 parts water makes an efficient cleaning solution). Safely removes dirt, grease and shedding. This cleaner is non-inflammable, non-hazardous and non-irritating to the user. Ideal for spray or vat cleaning.

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Twin-T Textile Machinery and Heddle and Reed Cleaners are available for immediate shipment in quarter, half and full (55 gal.) drums.

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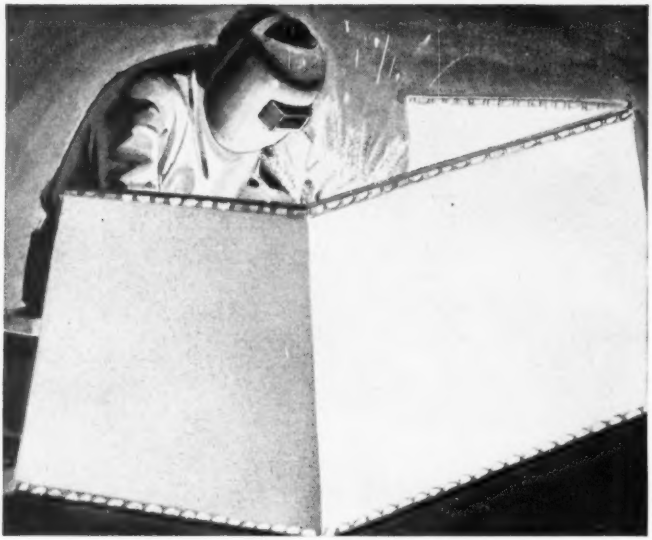
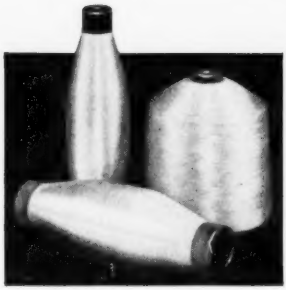


Industrial fabrics woven from Fiber·Glass are fire-safe, strong, rot- and mildew-proof. Among the many applications are tarpaulins, flame shields, airplane cloth, plastic reinforcement.



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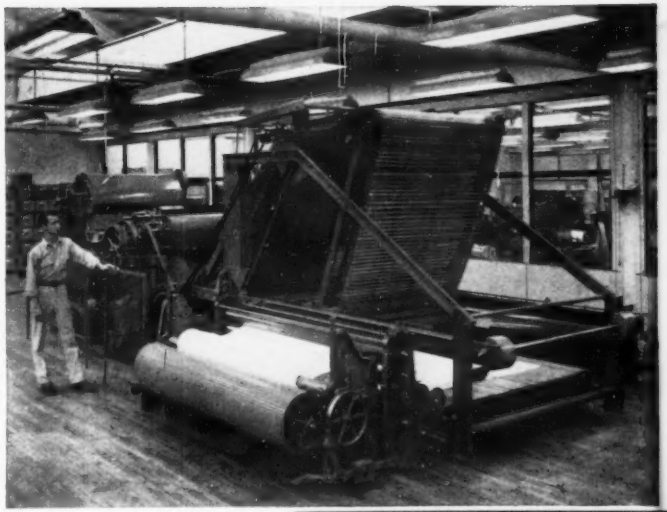
Rayon Reports

Published Monthly by American Viscose Corporation, New York, N. Y.

New Equipment for Experimental Production of Non-Woven Fabrics Installed by Avisco



The newest type, full-size web and bat forming equipment has just been installed in Avisco's Textile Research Department to round out research facilities for bonded fibrous materials.

The new machine produces garnett fibrous webs and cross-laid mats up to 84 inches wide. The garnett is equipped with workers and strippers similar to a roller card but clothed with wire designed to handle fiber over an approximate range of 1.5 to 10 denier in 1½- to 6-inch lengths. The doffer and floor aprons are equipped with variable speed controls to regulate the weight of web and mat.

The camel-back crosser lapper feeder arrangement can deliver a cross-laid web to the floor apron at right angles to the doffer and in most any width up to 7 feet. A cross-laid web can be built up on the floor apron into mat form of the desired weight, as it is progressively drawn off through a set of four compression rolls which give the mat a slight draft as well as make it more compact. The compressed mat is then wound on the tight winding head to put it in a form easily handled for whatever processing may be required.

A heating element has been installed in front of the compression rolls so that mats containing thermoplastic fibers may be heat set or bonded if desired. It is planned also to install an attachment so that the crosser lapper will feed directly to a take-off roll to give a straight laid web or mat instead of feeding transversely to the floor apron.

This garnetting equipment is part of a large new installation of new and improved textile machinery in Avisco's Textile Research Department for the study of all phases of the textile industry. Mill men interested in the operation of garnetting equipment for the production of fine-quality webs or heavy cross-laid mats of rayon or other fiber blends are invited by Avisco to view this equipment.

MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

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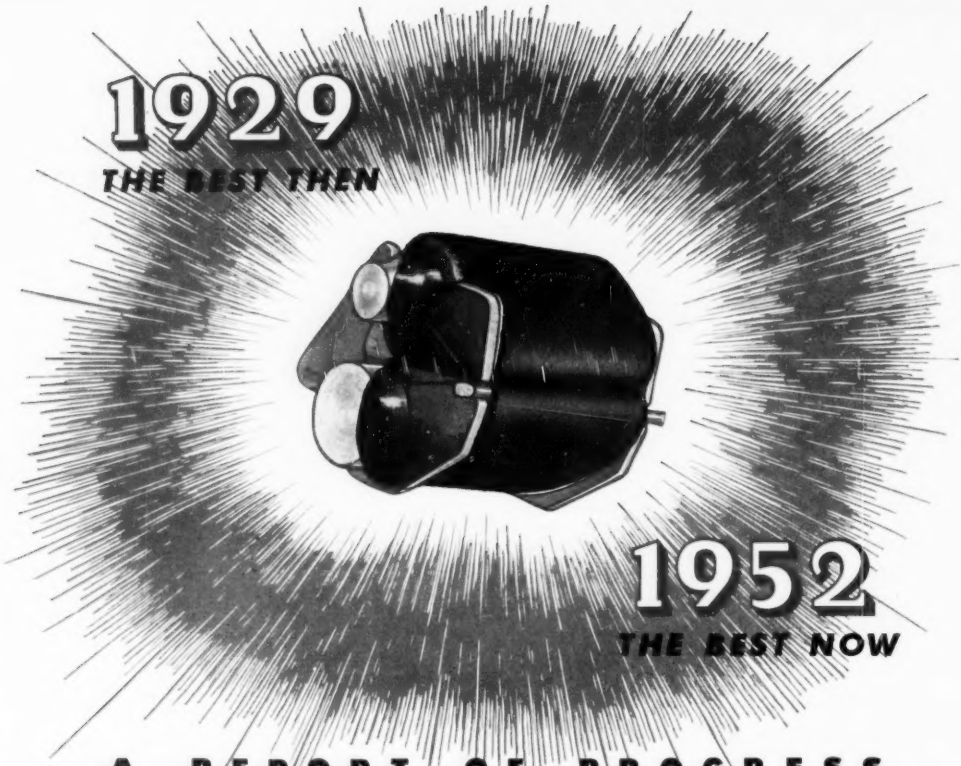
Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.



A REPORT OF PROGRESS

on the Whitin 2-Apron System for Long Draft Spinning

The principle of Long Draft Spinning is not new. For years textile men the world over had sought a successful method of combining higher drafts with *better fiber control.*

In 1929, Whitin, recognizing the outstanding merits and possibilities of the Casablancas 2-Apron System, introduced it on a large scale to the American textile industry.

Its acceptance by the industry was quick and widespread. Today, we can report having equipped 10,000,000 spindles, including both new spinning frames and changeovers, with the Whitin Long Draft System. This far exceeds the number of spindles equipped with any other single type of Long Draft System in the world. This record highlights the competitive benefits that leading mills have gained from the increased production and the stronger, more uniform yarns that can be spun on this system.

Whitin now has had 23 years of research, development, and manufacturing experience in adapting it to meet mills' requirements. Originally applied to cotton, it is now being extensively used for spun rayon, and worsted blends also. This experience, plus new large research facilities, will enable Whitin to retain its leadership in building better spinning frames equipped with the 2-apron Long Draft System.

Whitin MACHINE WORKS

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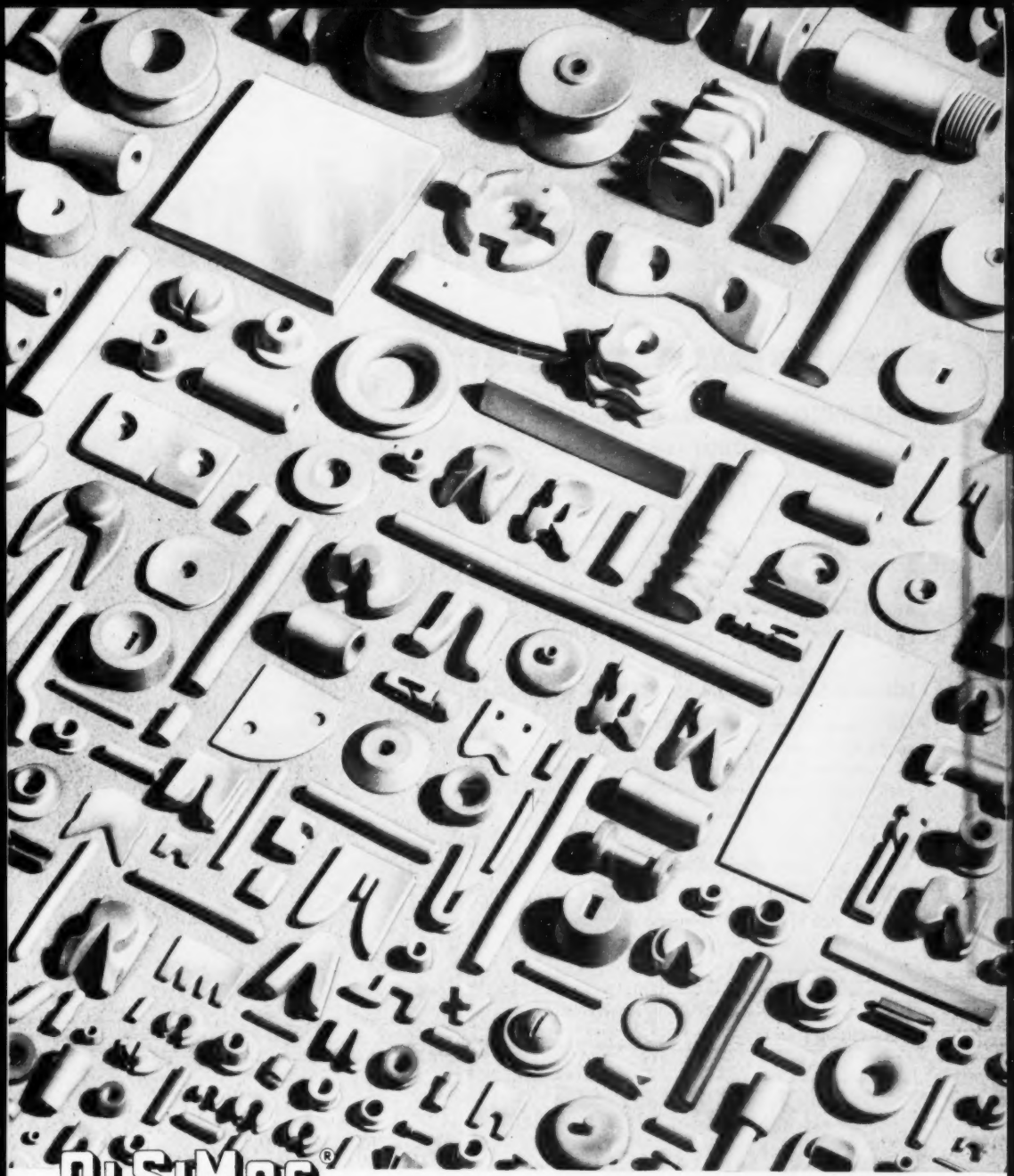

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Life-Line Loom Motors

Have balanced design, with an ideal combination of speed-torque characteristic and fly wheel effect, resulting in optimum loom performance. Life-Line construction provides maximum strength, minimum dimensions, and a smooth easy-to-clean finish.

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Streamlined, highly polished, stator windings and smooth internal surfaces prevent clogging and offer no foothold for lint to accumulate.

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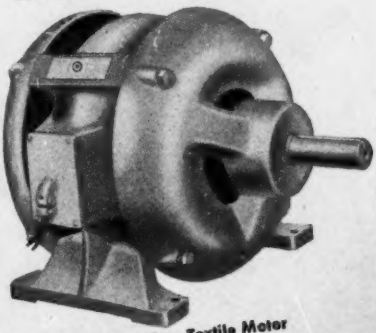

Lint-Free Textile Motor

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TEXTILE MOTORS
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Control Buy Today

Loom Motor Starter on Mounting Pedestal

REDUCE FIRE HAZARDS WITH THIS LINT-TIGHT STARTER

Report: "According to a study of weave-room fires by the Associated Factory Mutual Fire Insurance Companies for the period of 1935 to 1945, 38.8 per cent of the electrical fires in weave rooms were caused by loom motor starters."

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Designed in collaboration with the engineering division of the Associated Factory Mutual Fire Insurance Companies and leading textile manufacturers, this starter is aimed specifically at reducing weave-room fire hazards. No chance for combustible lint and dust to reach contacts and spark an explosion. It's the only starter approved by the Associated Factory Mutual Fire Insurance Companies.

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Outstanding Westinghouse features assure positive motor protection and long motor life. Positive bimetallic overload protection . . . quick-make—quick-break toggle mechanism . . . "De-ion®" arc quenchers . . . Bonderized enclosure.

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IMMEDIATE ACTION

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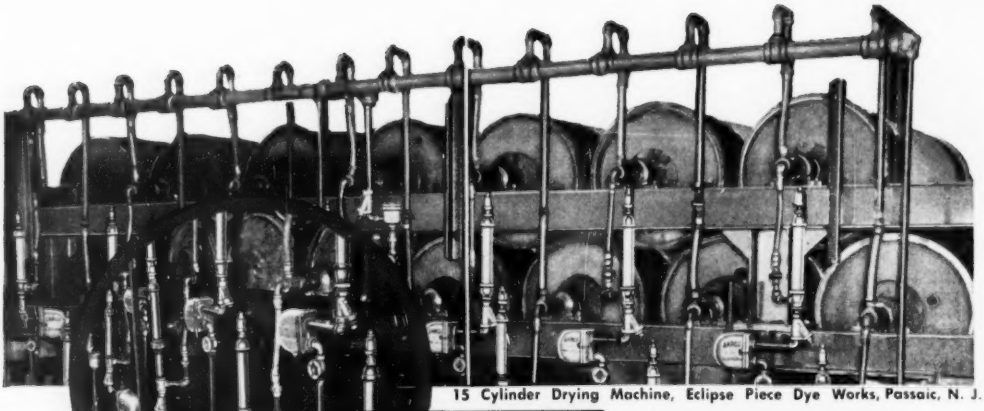
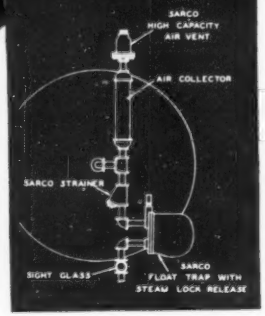


15 Cylinder Drying Machine, Eclipse Piece Dye Works, Passaic, N. J.

SARCO INCREASED CLOTH DRYING PRODUCTION 10 *to* 15%



The Sarco System is a packaged unit—ready to install and made up of time tested, Sarco elements which have given satisfactory service for years.

An investment of less than 1% of the original cost of this 15 cylinder drying machine increased its production 10 to 15% — with the Sarco Drainage System. Because all condensate and air are removed continuously, all parts of every cylinder are always hot. No air binding — no water logging — no steam locking; and you get a dollar's worth of usable heat from every dollar's worth of fuel you buy.

Warm-up time is also greatly reduced. In one plant, 2½ hours are saved every time the machine is started up — in this case a dozen times a week.

This is only one of the ways Sarco Saves in textile plants. Elimination of condensate and air, and temperature controls are working wonders. For instance, Sarco experience in using hot condensate for other purposes may save thousands of dollars in your plant.

Sarco products also include self-operated and electric controls for all wet process operations. Write for the catalogs.

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Ideal for BLENDS

TYPICAL SYTON APPLICATIONS IN LEADING MILLS

MILL A—55-45 wool-rayon blend. Applied 1.5% Syton to wool stock; then blended before carding. Front roll speed increased from 105 to 139 r.p.m.—resulting in over 30% increase in production.

MILL B—50-50 wool-rayon blend. Applied 2% Syton, 3% oil emulsion. Stock carded well and was spun to 3¼ run yarn. Tensile strength increased from 75 to 89 lbs.—a gain of 18%.

MILL C—80-20 wool-nylon blend. Applied 2% Syton, 4% oil to wool stock; then blended with nylon. Overseer attributed improved spinning to uniformity of sliver and yarn.

MILL D—50-50 wool-Dynel blend. Applied 1% Syton, 2½% oil (based on weight of wool) to blended stock. Spun to 6 run. Good control of fibers, smooth, uniform yarn noted.

MILL E—50-50 wool-viscose blend. Applied 1½% Syton, 3% oil to wool; then blended with rayon. Mill had used Syton for 18 months on blends, including virgin and darnetted wool, acetate, viscose, and nylon, with consistently good results.

New yarn strength and uniformity... no matter what you're blending... with SYTON

Whatever you're cooking up... in the way of blended fabrics... a dash of SYTON can do wonders for it.

Mill experience across the country shows definite, measurable increases in the strength, uniformity and spinning qualities of wool blends that have been given the benefit of Monsanto's silica sol additive.

- Sytonized wool-rayon yarn is 10-30% stronger.
- Smooth rayon staple approaches the spinning behavior of serrated wool fiber when Syton is applied to control inter-fiber slippage.
- Ends down are reduced... finer counts (or equal yarn strength with *less* twist) are standard... production is improved all along the line.

What better reason to *ask today* for complete information on how mill men are stepping up their operations and cutting costs with SYTON.

Syton Reg. U. S. Pat. Off.

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CHEMICALS—PLASTICS
SERVING INDUSTRY...WHICH SERVES MANKIND

MONSANTO CHEMICAL COMPANY, Textile Chemicals Dept., Desk TIT 39, Everett Station, Boston 49, Mass.

Please send me information on Syton.

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4 Scrubbing Operations into 1

with a COMBINATION SCRUBBER-VAC!

Here's a timely answer to the need for conserving manpower and reducing labor costs—*a single cleaning unit that completely mechanizes scrubbing. A Combination Scrubber-Vac* applies the cleanser, scrubs, rinses if required, and picks up (damp-dries the floor)—*all in one operation!* Maintenance men like this *four-in-one feature;* also the fact that the machine is *self-propelled* . . . has a *positive* clutch . . . new type of water valve that *assures* uniform flow of water . . . and powerful (quiet) vac for efficient pick-up.

The *Scrubber-Vac* shown at right, *Model 213P,* is designed for heavy duty scrubbing of large-area floors. This machine has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! (Powder dispenser is optional.) *Finnell* makes *Scrubber-Vac Machines* in a full range of sizes—for small, vast, and intermediate operations. From this complete line, you can choose the size that's exactly right for *your* job (no need to *over-buy* or *under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac,* and that *there's a Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups.

For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1302 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

Conserve Manpower with Completely Mechanized Scrubbing

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES

Let's talk

DOZENS OF PAIRS

Take a look at the "black sheep" in your hosiery finishing department — the "seconds" that cut your profits — then check these Turbo facts.

The Turbo Finish Boarder is production-proved in America's leading hosiery mills for more firsts, fewer seconds. Turbo's collapsible conveyors stop leg forms at the most efficient angle and spacing for quick inspection and easy dressing.

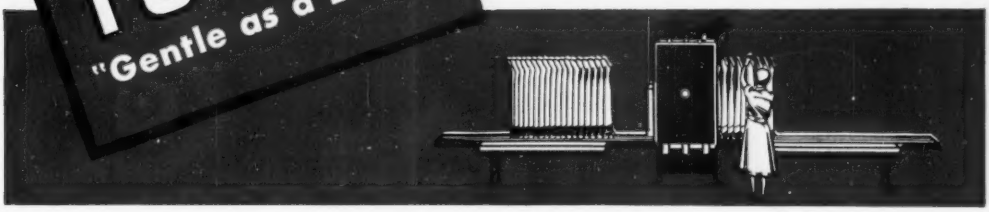
Operation is gentle as a lamb to protect your precious stockings — no jolt, no bang to break or injure delicate threads. Automatically controlled temperatures offer additional stocking safety. It's quiet too — which pays off in greater production through reduced operator fatigue.

There are four groups of twelve forms which operate automatically — operators only dress and strip the forms. Four sizes can be run at one time. With two operators a production of 250 dozen pairs per 8 hour day, of static-free, perfectly finished stockings is easily maintained.

Write today for the complete Turbo story — on preboarding and/or finish boarding — it's yours for the asking.

TURBO MACHINE COMPANY
Lansdale, Pennsylvania, U.S.A.
Southern Rep.: F. W. Warrington Co., Charlotte, N. C.

TURBO
"Gentle as a Lamb"



How you save time and money with

Pittsburgh CARGOTAINERS

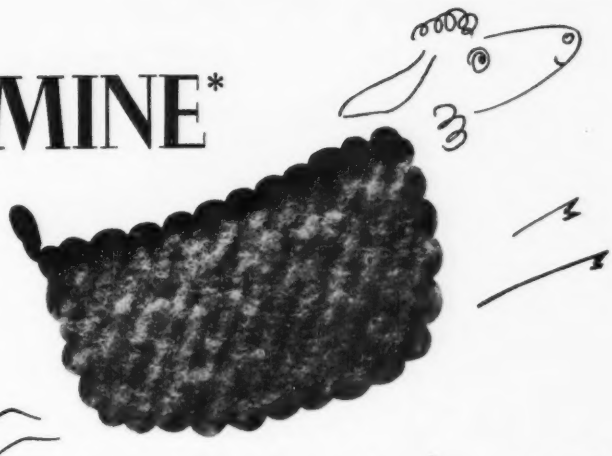
Substitute Pittsburgh Cargotainers for your old-time handling equipment and you'll find they rapidly pay for themselves in man-hours. Cargotainers are designed to move through every mill operation without unloading and reloading. They are easily moved with lift truck or dolly — they stack or fold — and are ruggedly built for either temporary or permanent storage. Cargotainers are open-mesh so that the contents are always easily identified by color and type . . . moreover old tags and other foreign matter drop through without accumulating in the bottom. For complete information on how these patented collapsible welded-wire baskets with eight-way pallet bases can simplify your handling problem, write without obligation to Pittsburgh Steel Products Company, Department TI, Grant Building, Pittsburgh 30, Pa.

CARGOTAINERS by

Pittsburgh Steel Products Company

A Subsidiary of Pittsburgh Steel Company

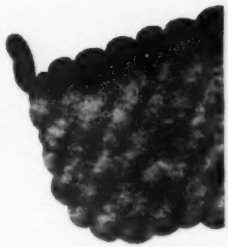
ANTHOMINE

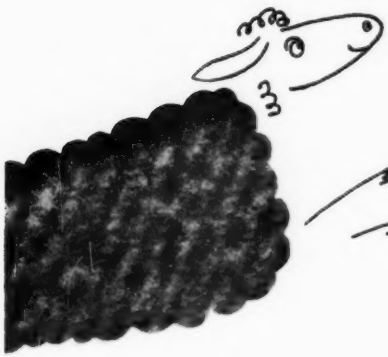


Up go profits! when your woolens go to market and don't come back...

Complaints cost money, whether by converter or consumer! That's why it is profitable to use ANTHOMINE for dyeing wool in any form. You'll get *level shades*, even with "tippy" or blended wool – *increased color yield* – and substantial *reductions in processing time.*

ANTHOMINE has powerful softening properties, leaving the stock, yarn or piece goods with a very desirable hand after dyeing.





Why not PUT ANTHOMINE TO THE TEST? Let us show you how ANTHOMINE can be used to the fullest advantage in your dyehouse. Mail the coupon below.

Arkansas Co., Inc.
P.O. Box 210
Newark, N. J.

Gentlemen:
Please send me, without obligation:

- ☐ Full details of ANTHOMINE'S benefits
- ☐ Application procedure for all wool dyeing processes
- ☐ Representative to arrange for demonstration

Arkansas Co. INC.

MANUFACTURERS OF INDUSTRIAL CHEMICALS FOR OVER 45 YEARS
NEWARK, NEW JERSEY

*Patented

NAME_____ TITLE_____

FIRM NAME_____

ADDRESS_____

CITY_____ STATE_____

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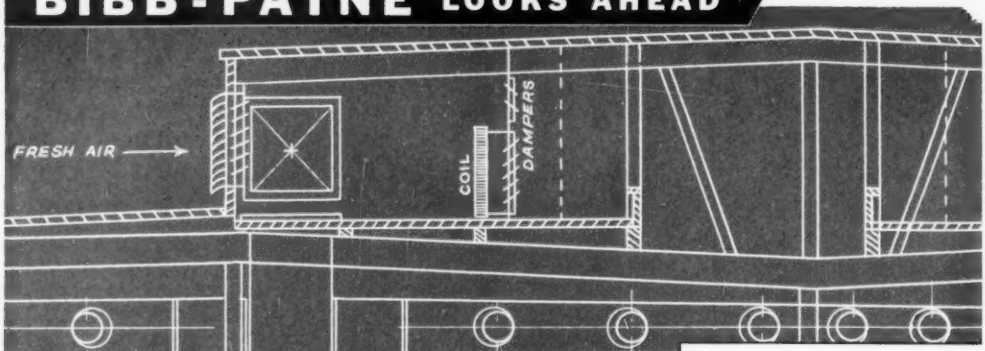
BIBB-PAYNE LOOKS AHEAD



WITH Bahnson HUMIDUCTS AND REFRIGERATION

FOR YEAR 'ROUND TEMPERATURE AND HUMIDITY CONTROL

H. S. Colbath, Plant Engineer, Bibb Manufacturing Company says: "Our Payne Mill at Macon, Georgia was one of the first completely air conditioned mills in the world. The Bahnson Humiduct system was chosen because of its applicability and the flexibility of zone control which is an integral part of this system. The system has been operating over two years and air conditioning has definitely proven advantageous in textile operating conditions."

The trend toward refrigeration in textile air conditioning is becoming more apparent each year. With refrigeration, time and production losses due to changes in outdoor conditions are eliminated.

Bahnson Humiducts provide an economical approach to the problem of complete conditioning in new or existing mills. The system can be installed for evaporative cooling now—refrigeration can be added later.

Note these savings

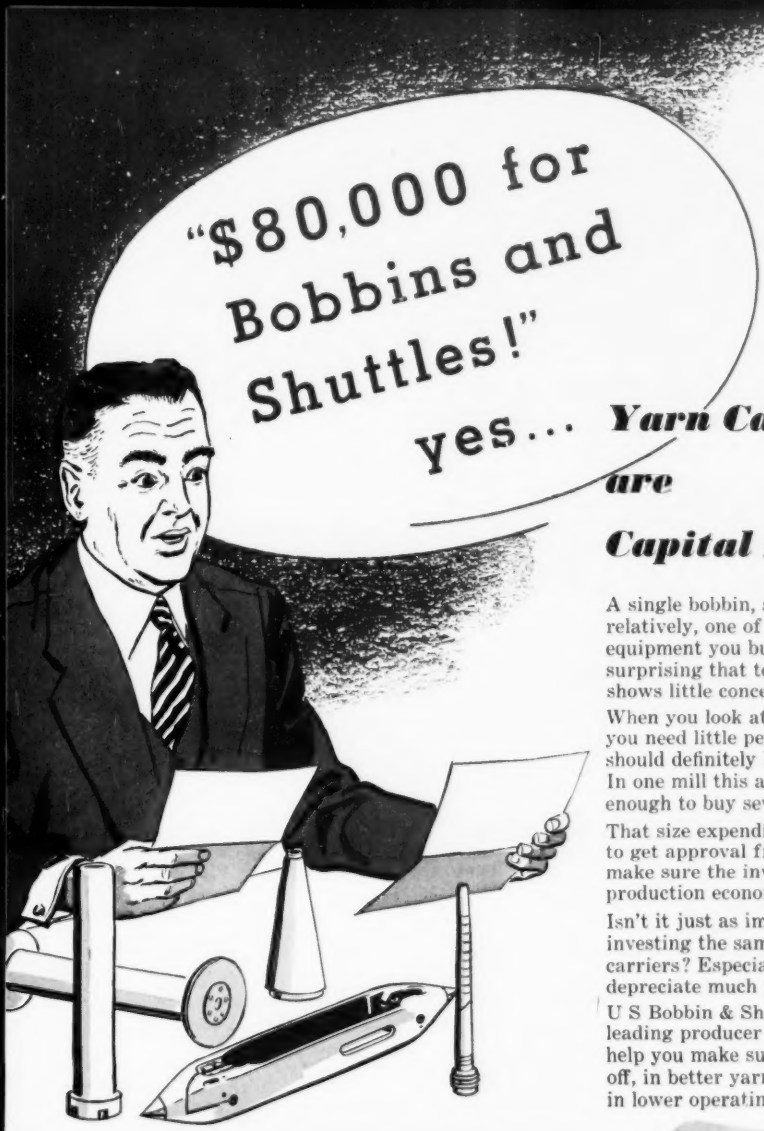
- NO EXPENSIVE APPARATUS HOUSES
- NO EXTENSIVE BUILDING CHANGES
- NO SUPPLEMENTARY HUMIDIFICATION
- NO COMPRESSED AIR REQUIRED

. . . and remember

The inherent flexibility of the Humiduct System gives better control of temperature, humidity, and air movement . . . the system pays for itself sooner . . . and your profit on the investment is larger.

Write for a copy of Bulletin 4-A.

Bahnson Company
ENGINEERS AND MANUFACTURERS
WINSTON-SALEM, N. C.



yes... ***Yarn Carriers, too, are***

Capital Equipment

A single bobbin, shuttle, or other yarn carrier is, relatively, one of the lowest-cost items of textile equipment you buy. For this reason, it's not surprising that top management in many mills shows little concern in their selection.

When you look at the total *annual* cost, however, you need little persuasion that yarn carriers should definitely be classed as capital equipment. In one mill this annual cost is $80,000 . . . enough to buy several cotton spinning frames.

That size expenditure in machinery would have to get approval from the front office. You'd make sure the investment would pay off in production economy before signing an order.

Isn't it just as important to take as much care in investing the same kind of money in yarn carriers? Especially since, if inferior, they can depreciate much faster than machines.

U S Bobbin & Shuttle Co. — for 93 years the leading producer of yarn carriers — will help you make sure your investment pays off, in better yarn and fabric quality, in lower operating cost.

U S owned timber properties permit complete control of wood stock selection and every step in processing, from forest to finished products. Five manufacturing plants, North and South, provide ample facilities to produce and deliver promptly the cost-saving yarn carriers you need, in any quantity.

Anywhere in textile America, you are near the headquarters of a U S specialist in yarn carrier selection. He'll call at your request.

U S BOBBIN & SHUTTLE CO.

LAWRENCE, MASS. PROVIDENCE, R. I. PHILADELPHIA, PA. JOHNSON CITY, TENN.
GREENVILLE, S. C. CHARLOTTE, N. C. MINNEAPOLIS, MINN.

LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave.
DALLAS: O. T. Daniel, Textile Supply Co.
CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

Many TEXTILE PLANTS *Use* HYSTER® 20 Lift Trucks

HYSTER 20 (2,000 lbs. capacity) comes in 6 model variations. The complete Hyster line has capacity ranges from 1,000 lbs. to 30,000 lbs. Write for literature.

MATERIALS HANDLING SUPERVISORS like the Hyster 20 because it transports fast, stacks high, gets in and out of tight places, rolls on pneumatic tires; is rugged and powerful.

OPERATORS like it because Hyster steers easily, carries and lifts loads smoothly, takes indoor and outdoor jobs in stride.

MANAGEMENT likes it because Hyster deals a low blow to materials handling costs — slashes manufacturing and warehousing overhead and adds to net profits.

See your Hyster dealer for an eye-opening demonstration and a list of owners. Or write for literature.

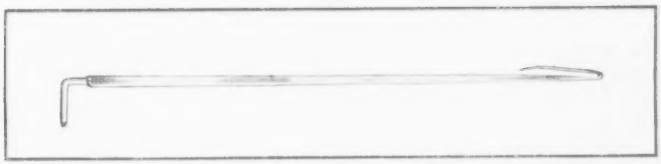
HYSTER COMPANY

THREE FACTORIES

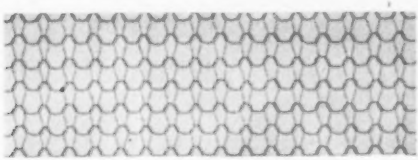
2902-57 N. E. CLACKAMAS, PORTLAND 8, OREGON
1802-57 NORTH ADAMS ST., PEORIA 1, ILLINOIS
1010-57 MEYERS STREET... DANVILLE, ILLINOIS

HYSTER®

it's the needle



that makes the stitch



that makes the stocking

Next time you're re-needling, try TORRINGTON NEEDLES and discover for yourself the superior quality that only world-famous, machine-made, machine-tested TORRINGTON NEEDLES provide.

THE TORRINGTON COMPANY, Torrington, Conn., U.S.A.
Established 1866

Branches: New York • Philadelphia • Chicago • Greensboro, N. C. Boston • St. Louis • Toronto, Canada • *Pacific Coast Representative:* E. G. Paules, 1762 West Vernon Ave., Los Angeles 37, Calif. Broadgate House, 7-10 Eldon St., London, E.C. 2, England

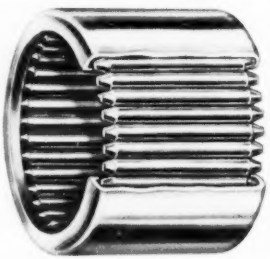
TORRINGTON

SPRING BEARD NEEDLES • SINKERS • DIVIDERS • SPLIT DIVIDERS

where small size pays off...

If you have a product where small size is both a big advantage and a big problem—consider the use of Torrington Needle Bearings.

A full complement of small diameter rollers permits the distribution of loads over a large area. Needle Bearings have a smaller O.D. in relation to capacity than any other type of anti-friction bearing. Both civilian and military products can benefit from this and other Torrington Needle Bearing features. Ask our engineers to give you a helping hand.



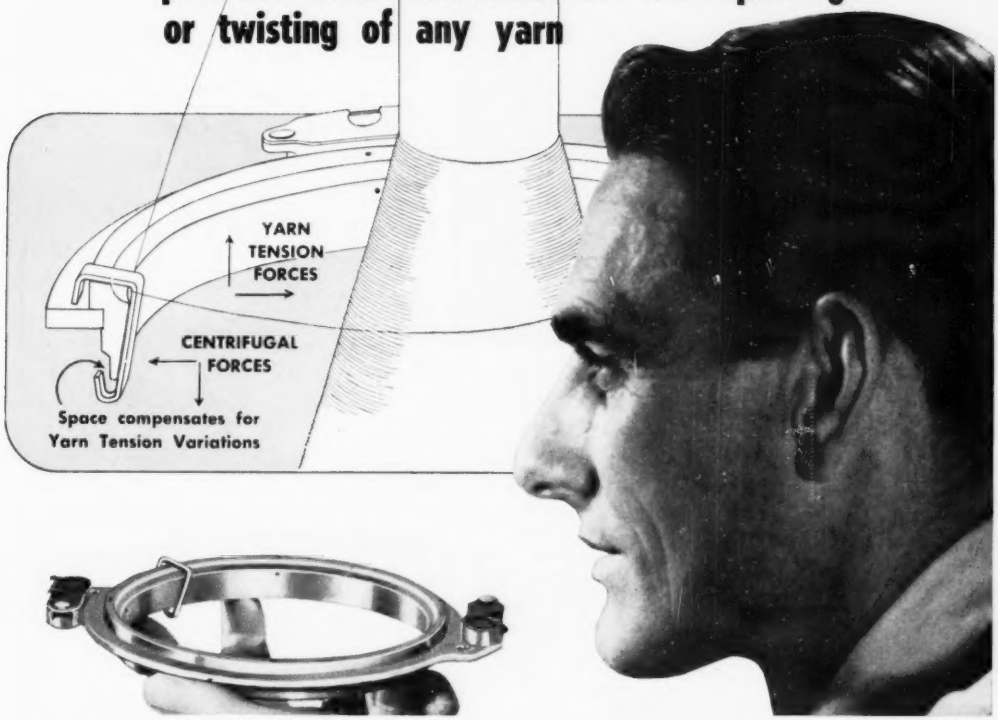
THE TORRINGTON COMPANY
Torrington, Conn. South Bend 21, Ind.
District Offices and Distributors in Principal Cities of United States and Canada

TORRINGTON NEEDLE BEARINGS

Needle • Spherical Roller • Tapered Roller • Straight Roller • Ball • Needle Rollers

The HERR CONICAL RING

provides ideal conditions for the spinning or twisting of any yarn



To prevent yarn breakage, and obtain smoother, cleaner yarn with heavier, more uniform doffs you will need Herr Conical Rings. Tension of the yarn is equalized by the centrifugal force of the traveler which is outward and downward.

The space between the bottom of the ring and the bottom of the traveler is the "factor of safety" that permits the traveler to compensate for varying tensions of the yarn.

The HERR CONICAL RING provides the right angles for the traveler. The conical surface directs the centrifugal force of the traveler downward. The traveler rides on the top and conical surface of the ring.

Wear of the traveler is held to a minimum by a specially formulated oil carried in capillaries to the top surface and the conical surface of the ring.

The traveler distributes and rides on the microscopic oil film. Maximum spindle speeds are achieved. There is no rewicking of the Herr Conical Ring.

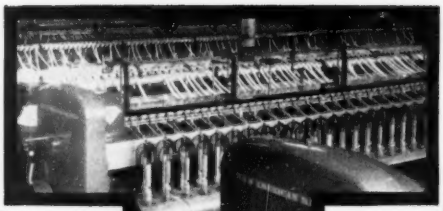
Ask for help on your problem.

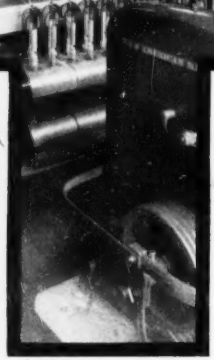
Gentlemen:
Please send literature on Herr Conical Rings and Herr Flyers.
Name .....
Position .....
Company address .....
Our problem is .....

HERR MANUFACTURING CO., INC.

310 FRANKLIN STREET, BUFFALO 2, NEW YORK

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON AND BLENDED YARNS OF ALL TYPES



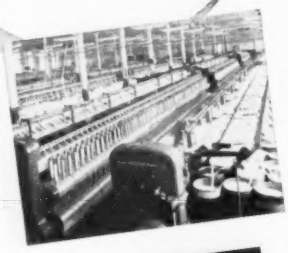


H&B ROVING MACHINERY

ailored to fit your needs

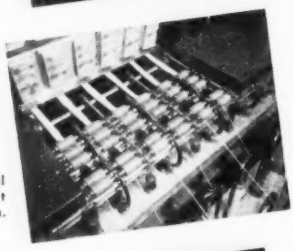
H & B Roving Machinery, whether High-Draft or regular, has been developed to a high degree of efficiency over a period of years and today the many H & B mill installations reflect the industry's widespread acceptance of this modern card room equipment.

The H & B High Draft Roving System is manufactured with either a four or five-roll drafting arrangement and each is suitable for a wide range of hank sizes. The drafting system contains positive roll weighting by means of a streamlined saddle and weighting assembly. Drafts are easily distributed — intermediate draft adjustments can be made without changing the overall draft. It is now common knowledge that high-draft roving cuts costs by eliminating from one to three operations.



Installation of H & B 8 x 4 and 9 x 4½ High-Draft Slubbers — all suitable for a wide range of hank sizes.

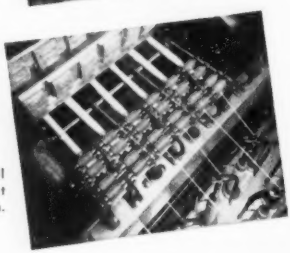
With the advent of super high-draft spinning, however, the trend has been to larger and larger roving packages. H & B can readily and easily conform to the trend by offering its three line, 12 x 6 slubber or its four or five-roll, 10 x 5 slubber, depending on the mill organization. For example, with H & B's new Casablancas Super High-Draft Spinning System, certain counts can be spun from .60 or .75 hank single in the creel. This particular hank size can be made on a three-roll conventional slubber.



H & B 5-Roll High-Draft Roving System.

Whether conventional or high-draft, the same excellent design, materials and quality workmanship are all included in the manufacture. Each machine is specified and built to conform to a mill's organization plan . . . tailored to fit your needs.

The H & B High Draft Slubbers feature a patented Bakelite Scroll Condenser. This Condenser prevents the flaring and spreading of the fibers and simultaneously folds all short fibers into the center by condensing them into a compact sliver. This is accomplished without disturbing parallelization and sufficient false twist is inserted to assure better control in the final drafting zone. No other High Draft Slubber on the market today offers better fiber control or flexibility.



H & B 4-Roll High-Draft Roving System.

H&B AMERICAN MACHINE CO.

FACTORY, EXECUTIVE OFFICES AND EXPORT DIVISION • PAWTUCKET, R. I., U. S. A.
Branch Offices: Atlanta, Ga. — 815 Citizens and Southern National Bank Bldg.
Charlotte, N. C. — 522 West 4th Street
Greenville, S. C. — 1510-11 Woodside Bldg.

Builders of MODERN TEXTILE MACHINERY

the finest web made by nature...

can't compare

with webs made by

RANDO-FEEDER

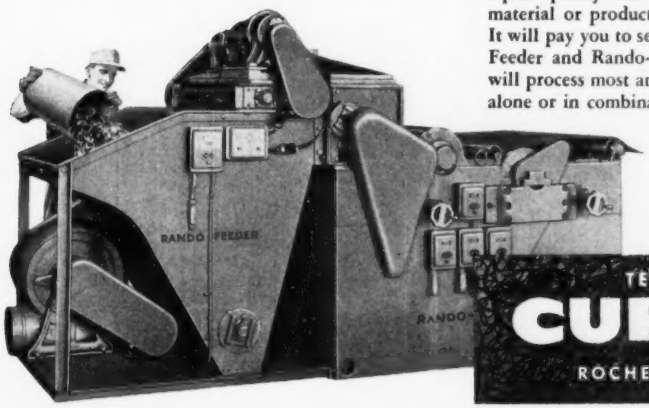
and

RANDO-WEBBER

for

1. Dry processing, wherein plastic fibers are blended with other materials, or resin powders are introduced while web is being formed. As a final step web may be calendered or heat processed.
2. Wet processing. Webs can be treated by impregnating rolls or in a spray chamber.
3. Quilting. Random webs can be quilted by stitching or with a heat sealer.
4. Needle punching. This process is used when making rug cushions or floor mats.
5. Felting.
6. Heat Sealing. Random webs can be heat sealed to paper, crepe, kraft OR to a plastic film.

For many uses a Random Web may be superior to, or of equal quality but costs less, than a competitive woven material or product made in an entirely different manner. It will pay you to see and test webs produced by the Rando-Feeder and Rando-Webber . . . the textile machines that will process most any fiber (vegetable, animal or synthetic) alone or in combination.



Write today for detailed information on how you can have a web made from your own fiber. Curlator Corp., 577 Blossom Road, Rochester 10, N. Y.

TEXTILE DIVISION
CURLATOR
CORPORATION
ROCHESTER 10, NEW YORK

When does a No. 1 Traveler weigh half a pound?

On the scale, a No. 1 Traveler weighs 1 grain, but riding the rings at today's high speeds, it exerts an amazing "pull".

By applying simple dynamic principles to known factors, the centrifugal force can be calculated. For a No. 1 Traveler operating at 9600 r.p.m. spindle speed on a 2½" ring, this force is 3250 grains — almost half a pound!

Consider how this intensifies conditions of wear and friction. You'll see how important it is to choose travelers of the proper balance, temper, and finish to withstand this punishment without interrupting the smooth flow of yarn production.

Victor Travelers are made to serve longer — to deliver more pounds of yarn per traveler — under the toughest conditions. That's why they are first choice of economy-wise mill men for more than 10,000,000 of today's hard-working spindles.

Whether you are running conventional fibers, synthetics or blends, talk to a Victor Service Engineer about your traveler problem. Write, wire, or phone the nearest Victor office . . . for prompt service.

•

Keep a Step ahead with

VICTOR Ring Travelers

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . . Tel. Dexter 1-0737

GASTONIA, N. C. . . . . 358-364 West Main Ave. . . . . Tel. 5-0891

sew up more sales...

with improved sewing properties...one of many† sales-stimulating qualities imparted to fabrics by

Cyanamid Textile Chemicals

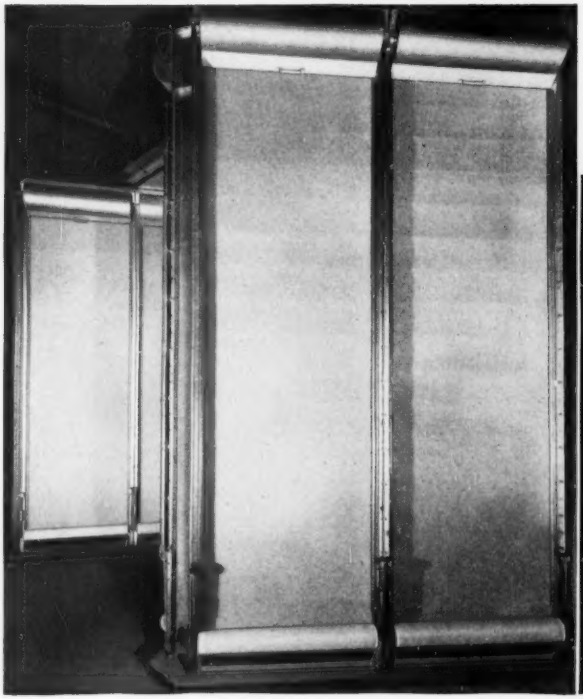
DECERESOL® Wetting Agents
NO-ODOROL® Finishing Oils
AQUASOL® Sulfonated Castor Oils
Softeners Penetrants
Sizing Compounds Soluble Waxes

NEW—*DECERESOL OT-B, a rapidly dispersible powder. Special Technical Bulletin sent on request.*

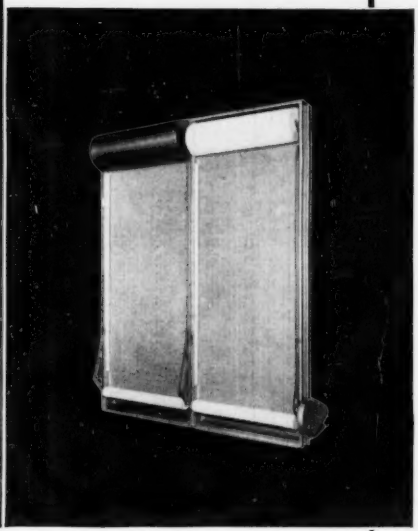
†others...
good hand
penetration
suppleness
good dye affinity

AMERICAN Cyanamid COMPANY

INDUSTRIAL CHEMICALS DIVISION
30 Rockefeller Plaza, New York 20, N. Y.
IN CANADA: NORTH AMERICAN CYANAMID LIMITED, TORONTO AND MONTREAL



Eight-section Auto-Airmat installed in Double V banks to conserve space.



AUTOMATIC LINT FILTER...

engineered to reduce operating costs

Auto-Airmat . . . the only practical, self-cleaning filter developed especially for textile mill service.

Specially designed equipment is proving the practical answer to rising maintenance costs and increased overhead. For example the Auto-Airmat* lint filter efficiently cleans return air from weaving and spinning rooms and reduces costly "overtime" maintenance on air washers, but that's only part of the story. It's specialized design features also reduce manual maintenance to a minimum and lick the critical and costly disposal problem. Sectionalized construction gives great versatility in handling lint loads as well as conserving space as shown in the installation above.

In the Auto-Airmat a sheet of Airmat media moves downward on an endless screen from a roll at the top of the filter and is rerolled at the base with its lint load . . . ready for easy disposal. The rate and frequency of screen travel is automatically controlled by a pressure switch. This starts the drive mechanism when resistance builds up to a predetermined maximum. The screen stops when sufficient clean Airmat has been introduced to reduce resistance by 0.1" w.g.

The automatic operating feature of the Auto-Airmat insures maximum filter efficiency with minimum servicing. Also the collection method eliminates expensive "overtime" cleaning jobs and solves the disposal headache.

If lint from your weaving, carding or spinning rooms is a costly problem, call your AAF representative . . . or write us for Engineering Bulletin No. 234.

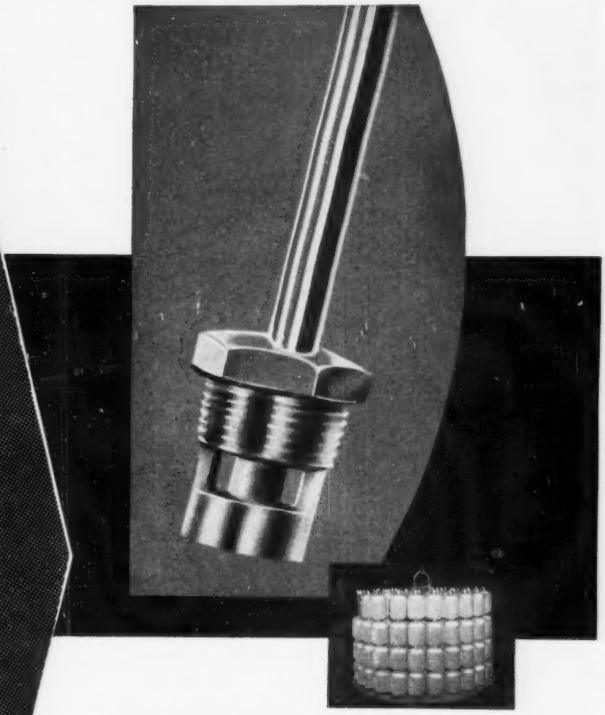
**Airmat is the trade-mark (reg. U. S. Pat. Off.) of the American Air Filter Company, Inc., for various air filters, dust collectors, and filtering media.*

American Air Filter
COMPANY, INC.

275 Central Avenue, Louisville 8, Kentucky • American Air Filter of Canada, Ltd., Montreal, P. Q. • Pacific Division Office, San Francisco, California

®AAF

THIS IS THE *NEW* PACKAGE DYE SPINDLE YOU'VE BEEN LOOKING FOR!



- **Eliminate replacement cost**
- **Entirely new construction**
- **Indestructible**
- **Greater Flow—for better dyeing**
- **Minimum Resistance—Open flow to package**
- **Interchangeable for all sizes of dye tubes**

Developed by the Manufacturers of
Stienen-Obermaier Equipment.

BUILDERS OF

Cotton and wool dyeing machines • for beams • packages • raw stock • skeins • rayon cakes • dye spindles • perforated tubes • centrifugal pumps • extractors and dryers

STIENEN
Lead with the LEADER
OBERMAIER

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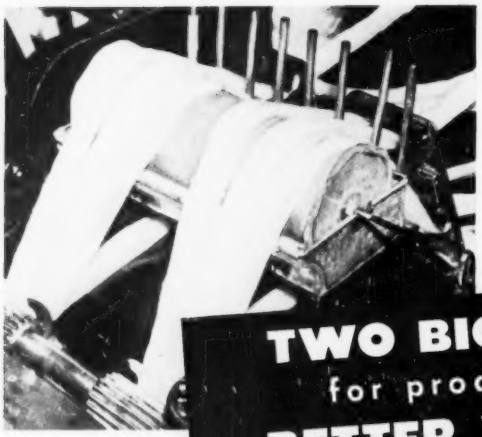
Standard Fabricators
INCORPORATED
355 Walton Avenue • New York 51, N. Y.



TWO BIG AIDS for producing BETTER YARNS

NOPCO* FUA

—the self-fulling WOOL oil whose remarkable efficiency and versatile performance is proven daily in mills thruout the country. Acts like an *oil* during carding, gilling and spinning, and like a *soap* in wet finishing.

ASSURES:

1 Excellent fiber lubrication, elimination of static, no gumming of cards. Result: Better carding and loftier roving.

2 Increased yarn strength, improved spinning on mules or frames. Result: Higher spinning production.

3 Improved results from the steaming process—since Nopco FUA does not set in the yarn, nor in fabric when greige goods are crabbed. Result: No cloudy dyeing.

4 Excellent results from the fulling process—since Nopco FUA provides superior fulling with excellent sudsing action (*without* the addition of soaps or detergents).

5 Fast, ultra-efficient scouring—again without the addition of soaps or detergents. Residual oil content only about 0.2%.

Reg. U. S. Pat. Off.

NOPCO 1656-R

—the specially developed anti-static oil that enables the WORSTED manufacturer to obtain exceptionally good results—comparable to those achieved by users of Nopco FUA for wool processing.

1 Fibers remain static-free thruout carding, gilling, combing and drawing.

2 Even-running yarn is assured.

3 Removal is phenomenal. Used in conjunction with alkali, polyphosphate and water, Nopco 1656-R actually *converts into suds.* Soap usage is reduced 50-75%.

4 Because of this self-scouring feature, *better* dyeing and finishing results are obtained at *lower* cost.

5 Nopco 1656-R is non-gumming, non-yellowing, non-corrosive.

6 No changes in equipment or methods are necessary. Nopco 1656-R is applied in same manner as any conventional lubricant.

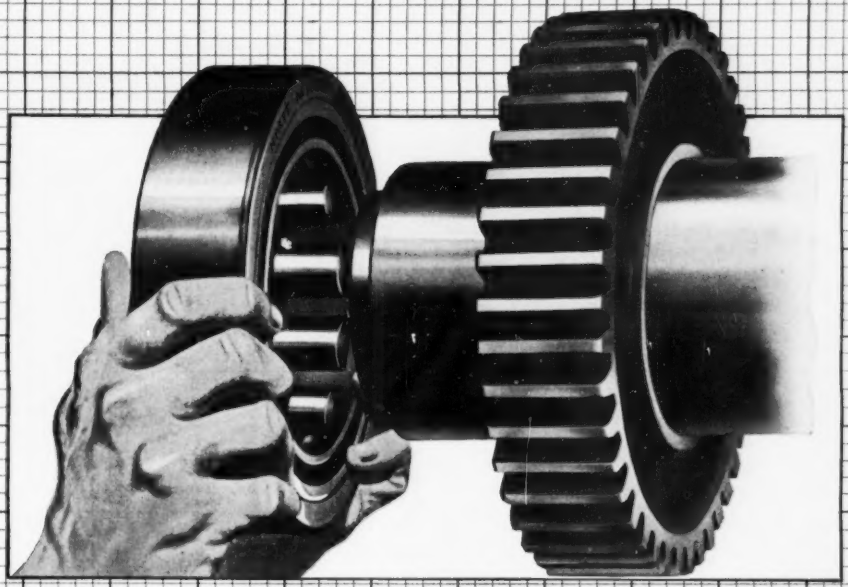
If you buy WORSTED top, specify Nopco 1656-R—every commission top maker is thoroughly familiar with it. If you manufacture WORSTED tops, process them with Nopco 1656-R and profit by gaining increased customer satisfaction.

NOPCO
EVOLVED THRU RESEARCH

NOPCO CHEMICAL COMPANY

HARRISON, NEW JERSEY

Branches: Boston • Chicago • Cedartown, Ga. • Richmond, Calif.



When Hyatts Go In —Bearing Wear and Care Go Out

When manufacturers of looms and preparatory and finishing machines "build in" Hyatt Roller Bearings, you may be sure they have the mill man's interest in mind. Because, with Hyatts at all the important bearing points, they know they are giving you equipment which will run better, cut down maintenance, and help you turn out more and better yarn or cloth at less cost.

Leading textile machinery producers have used Hyatt Roller Bearings as standard equipment for many years. Others will furnish these bearings upon specification. For changeovers on existing equipment, too, Hyatts are usually available to replace plain bearings. Let us give you the facts. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS

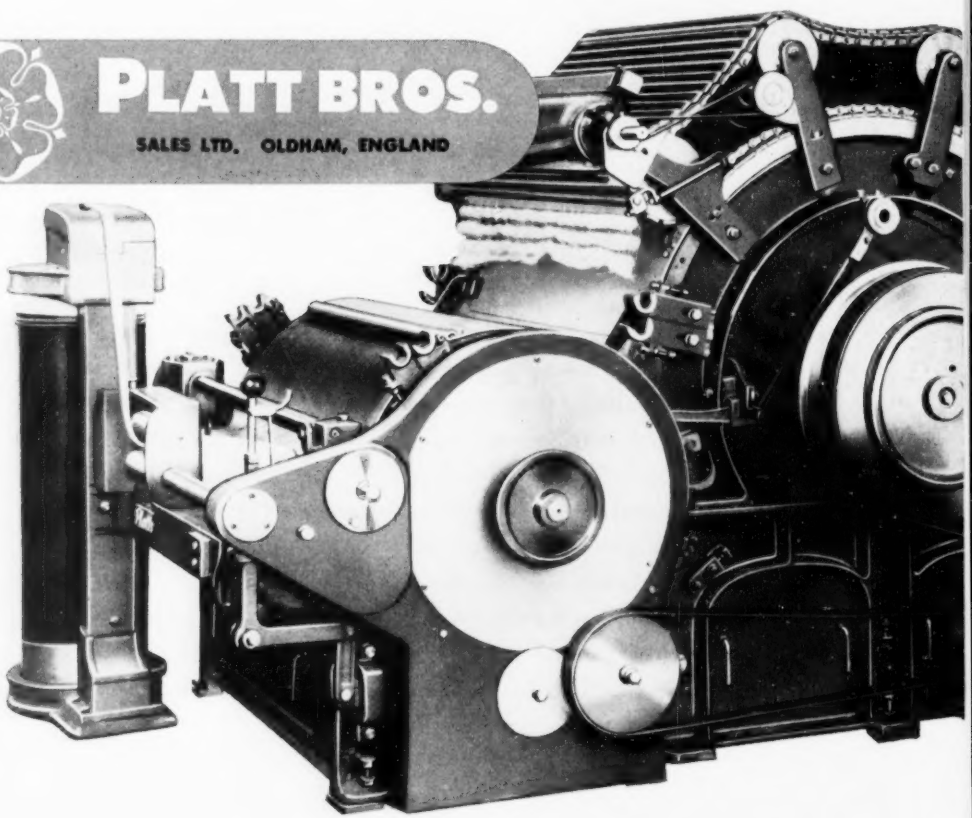
Hundreds of Platt

are already improving production in American cotton mills

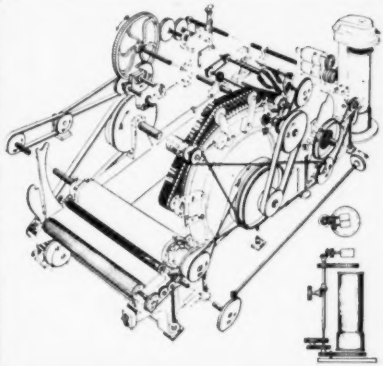
There are a lot of mills rediscovering the perfection of Platt machinery. This cotton card is solidly built to close tolerances. One outstanding result is the way it takes *and holds* an accurate setting; vibration is eliminated at all working speeds; undesirable air currents are eliminated. Notice the streamlined design and guarding to keep fly *outside* where it can be easily wiped off. It will pay you in immediate cash savings and future improved production to see this card in action. Could you visit our Charlotte machinery center, or perhaps we could arrange a trip to a nearby installation? You'll hear a lot about even, nepless webs!!

PLATT BROS.

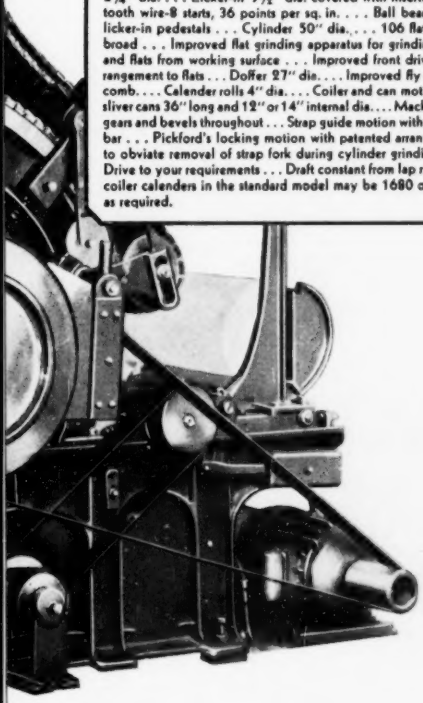
SALES LTD. OLDHAM, ENGLAND



Cards



STANDARD SPECIFICATIONS: 40" wide . . . Clothing for your requirements . . . Dish feed plate with fluted steel roller 2¼" dia. . . . Licker-in 9½" dia. covered with inserted saw-tooth wire-8 starts, 36 points per sq. in. . . . Ball bearings to licker-in pedestals . . . Cylinder 50" dia. . . . 106 flats 1⅜" broad . . . Improved flat grinding apparatus for grinding wire and flats from working surface . . . Improved front driving arrangement to flats . . . Doffer 27" dia. . . . Improved fly doffing comb. . . . Calender rolls 4" dia. . . . Coiler and can motions for sliver cans 36" long and 12" or 14" internal dia. . . . Machine cut gears and bevels throughout . . . Strap guide motion with handle bar . . . Pickford's locking motion with patented arrangement to obviate removal of strap fork during cylinder grinding . . . Drive to your requirements . . . Draft constant from lap roller to coiler calenders in the standard model may be 1680 or 2240 as required.



Seeing the machine and the process...

Being engineers and agents for every type of cotton preparatory machinery gives us a broad perspective; an understanding of the interdependence of machines; you might say the ability to see *the forest* and *the trees*. May we be of service to you in selecting a single machine or a complete mill?

Atkinson, Haserick & Co.

a. h.

Textile Machinery Agents and Engineers Since 1823

211 CONGRESS STREET
BOSTON 6, MASS.
1639 W. MOREHEAD STREET
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TEXTILE BANKING COMPANY

Inc.

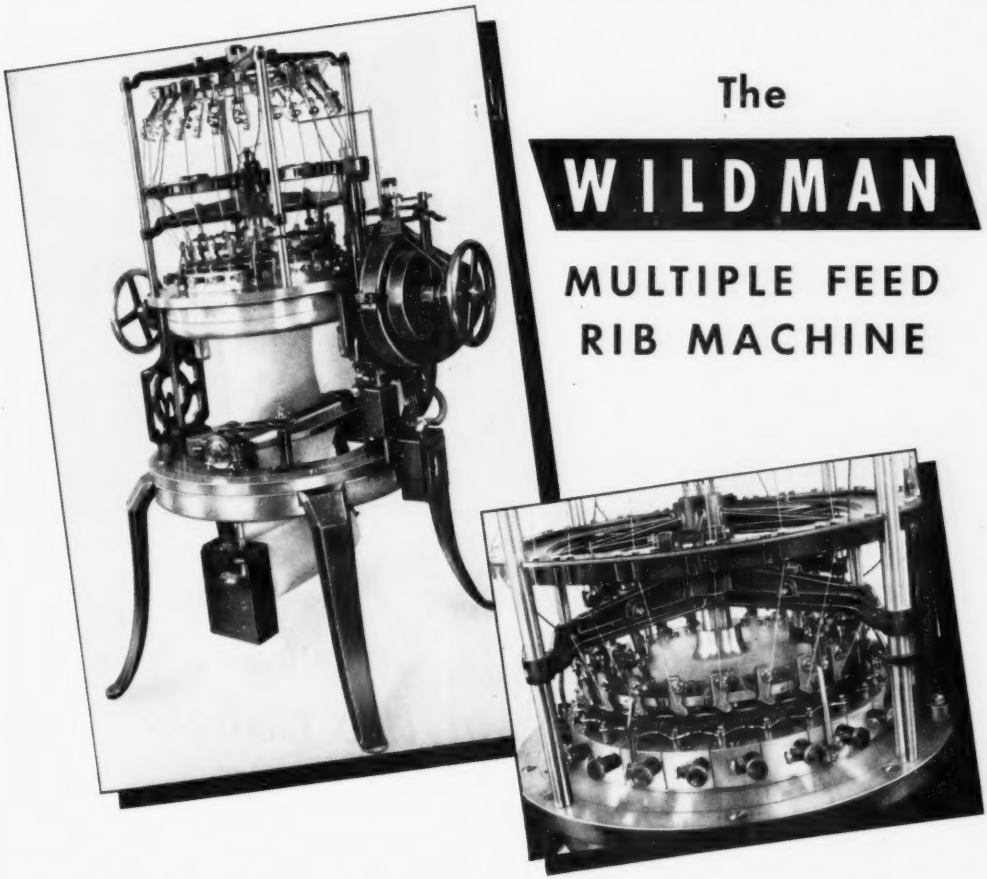
Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

55 MADISON AVENUE • NEW YORK

Precision Engineered

To Assure Maximum Production



The

WILDMAN

MULTIPLE FEED RIB MACHINE

Assured better styling, uniform sizes, *AND* more than DOUBLE PROTECTION . . . *Offers* a much greater opportunity for pattern designs in sports wear and all other knitted garments . . . *Guarantees* uniformity in garment sizes for yarn is fed under even constant tension . . . *Produces* more than double production with a power increase of only about one-third . . . AND, it is not necessary to stop machine to put on new cones.

INDEED, precision engineered for top production.

Write for details to:

WILDMAN MFG. CO., Norristown, Pa.

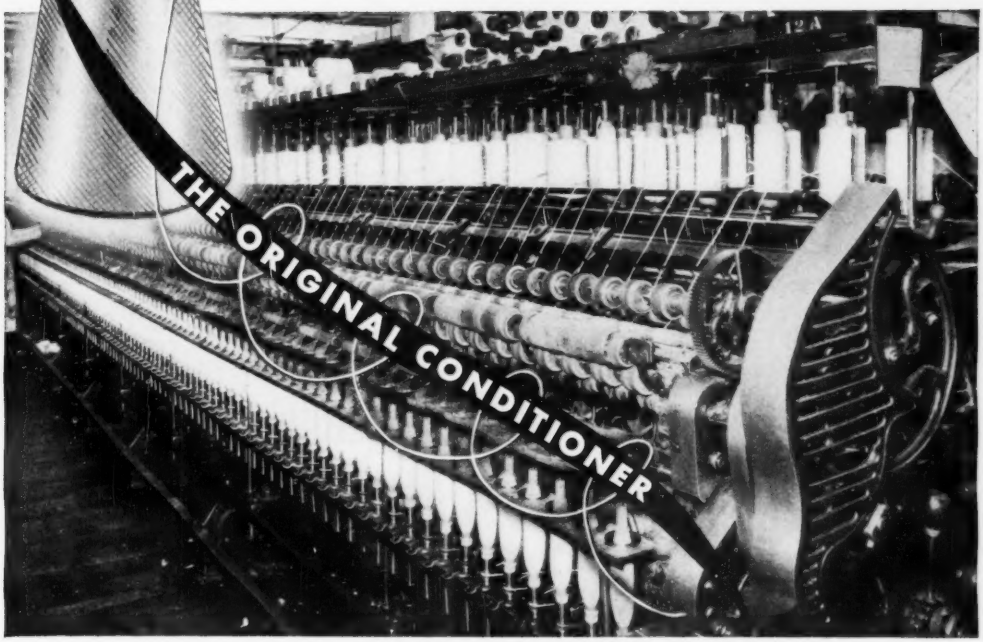
This
Invisible Label
stands back of the Labels
of the
World's Finest Woven Fabrics

Crompton & Knowles LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA. • CROMPTON & KNOWLES JACQUARD & SUPPLY CO., PAWTUCKET, R.I.

Specify MINEROL



For Controlled Flexibility

There Is No Substitute for Quality

IN THE opening, picking, carding, and spinning operations — maximum efficiency demands flexibility of fibres — both natural and synthetic. And that is the very function MINEROL performs so satisfactorily.

MINEROL not only fits in with modern methods of humidification used by the Textile Industry but actually augments and transcends them. For MINEROL stabilizes processing conditions two ways — (1) by retaining moisture and (2) by lubricating fibres.

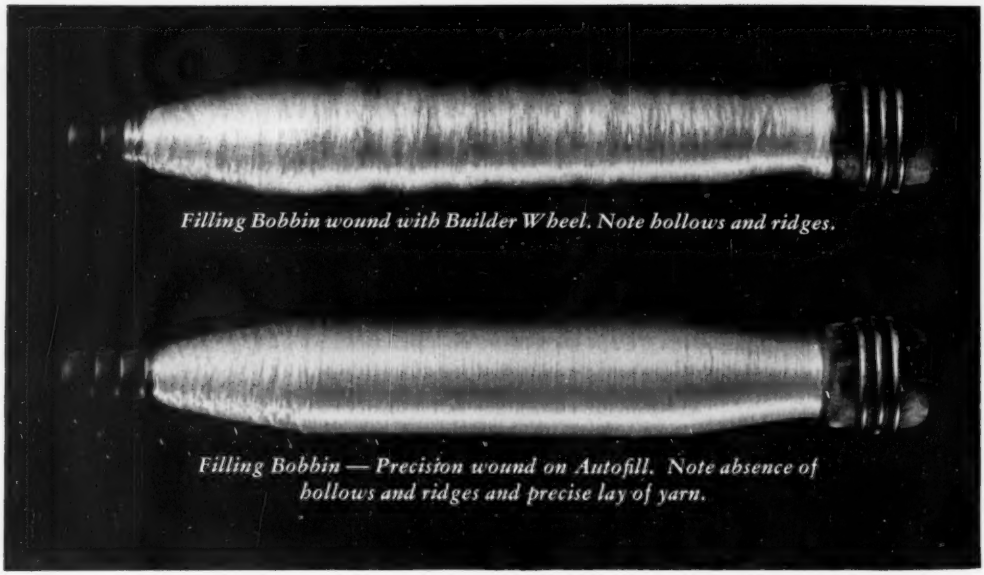
As a result, scores of case histories prove that MINEROL not only cuts costs and eliminates waste in time and material, but actually pays for itself in increased production. Better Employee Relations result from reduction in card waste and "fly".

If you would like complete information on MINEROL,—let us know the type, grade, and staple of the fibres you use, whether the fibres are to be carded or combed, and what type of opening or picking equipment you employ. With this information in hand — we'll do the rest.

BORNE Since 1874 SCRYMSER

Our Laboratory Facilities are always at your disposal

BORNE, SCRYMSER COMPANY ELIZABETH, N. J. • CHARLOTTE, N. C.

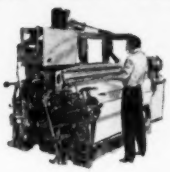


Filling Bobbin wound with Builder Wheel. Note hollows and ridges.

Filling Bobbin — Precision wound on Autofill. Note absence of hollows and ridges and precise lay of yarn.

The Foster-Muschamp Autofill Bobbin Will Save You Money

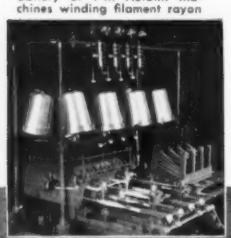
. . . AT THE LOOM



Particularly if You're Weaving Fine Denier Yarns

Winding filament rayon from parallel packages on the F-M Autofill

Battery of F-M Autofill Machines winding filament rayon



You can't afford to take chances *at the loom,* because "value added by manufacture" is approaching the peak at that point.

You can greatly improve the efficiency of your looms, economy in winding and the quality of your fabrics, by winding your filament filling yarns on the Foster-Muschamp Autofill — completely automatic. This machine uses gears, instead of a builder wheel, to control the lay of the yarn on the bobbin. It produces a bobbin which is exceptionally free of broken filaments, ridges and hollows. The Autofill bobbin delivers with precision in the loom, because it is a precision wound product. Results — better weaving at less cost — more production — fewer rejects.

You want these benefits no matter what you're weaving and can get them with the Autofill. However, they're particularly important if you're weaving fine denier yarns, such as 30 denier nylon. In such cases, because your materials cost is high, losses due to damage become astronomical.

Get all the facts regarding Foster-Muschamp Autofill — the completely automatic precision filling winder. Send for bulletin M-1 to-day.

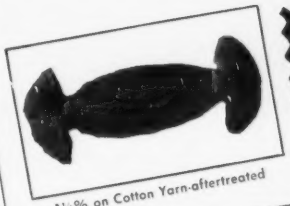
FOSTER MACHINE COMPANY

Westfield, Mass., U. S. A.

Southern Office — Johnston Bldg., Charlotte, N. C.

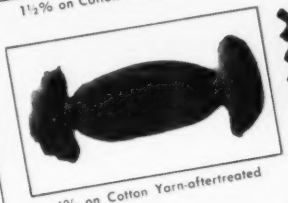
Direct Dye for Cotton and Rayon Piece Goods

NATIONAL NIAGARA FAST COPPER BLUE EG



1½% on Cotton Yarn-aftertreated

1½% on Spun Rayon-aftertreated



4% on Cotton Yarn-aftertreated

4% on Spun Rayon-aftertreated

National Niagara Fast Copper Blue EG is a non-dusting direct blue producing, on cotton or rayon, moderately bright reddish shades of blue which, when aftertreated with copper, become considerably greener in shade and considerably improved in fastness. This is particularly true when used on rayon, on which fiber it is rated as possessing very good fastness to light, crocking and hot pressing and excellent fastness to acids, alkalies, perspiration, water and sea water.

Because of the above fastness properties National Niagara Fast Copper Blue EG is ideally suited for coloring rayon materials for children's play suits as well as fabrics for sport suits, snow and ski suits where fastness to light and water is particularly desirable.

Bulletin 354

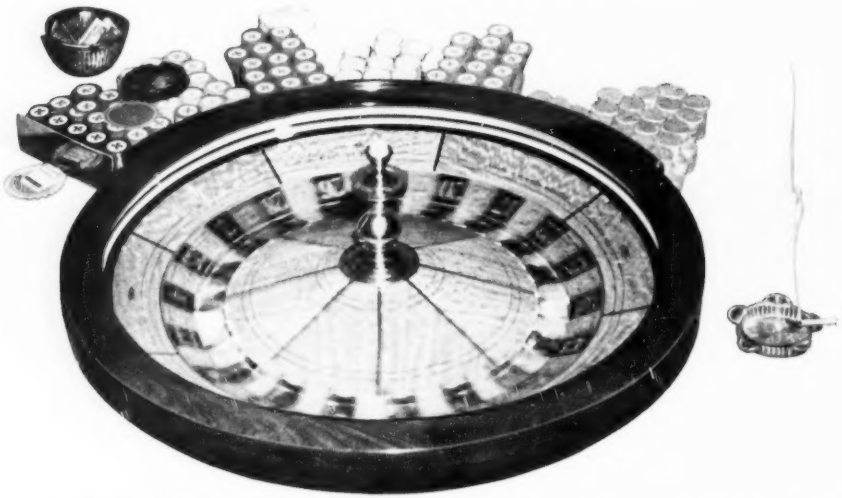
If you have not received National Bulletin #354 giving complete fastness data and dyeings, write or phone our nearest office for your copy

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

You Can't Depend on these Numbers . . .



But You CAN Depend on *Ashworth's* 4-6-7

4 FACTORIES (Fall River, Worcester, Philadelphia, Greenville) assure you of an uninterrupted supply of card clothing. Decentralized and strategically located, these factories can "pinch hit" for each other in emergencies.

6 REPAIR SHOPS (Fall River, Philadelphia, Charlotte, Greenville, Atlanta, Dallas (Textile Supply Co.)) assure convenient, economical and prompt reclothing and repair service.

7 DISTRIBUTING POINTS (Fall River, Worcester, Philadelphia, Charlotte, Greenville, Atlanta, Dallas (Textile Supply Co.)) make Ashworth products and consultation service more readily available.

AND DON'T FORGET "90". More than 90 years of experience in cards and card clothing — your guide to a consistently high standard of quality in manufacture and efficiency in performance.

Buy Ashworth Card Clothing and get DEPENDABILITY.

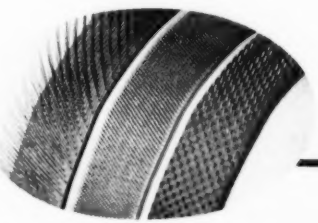
ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

FALL RIVER • WORCESTER • PHILADELPHIA • CHARLOTTE • GREENVILLE
ATLANTA • DALLAS (Textile Supply Co.)

CARD CLOTHING . . .

For cotton, wool, worsted, silk, rayon and asbestos cards and for all types of napping machinery. Brusher clothing and card clothing for special purposes. Lickerin wire and garnet wire. Sole distributors for Platt's metallic wire. Lickerins and top flats reclothed.



Ashworth **CARD CLOTHING**

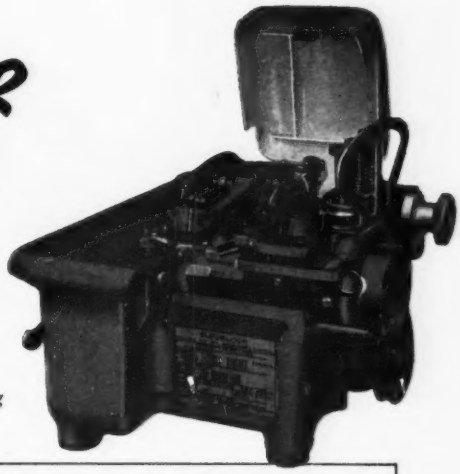
Here's why you always get

FASTER, BETTER PRODUCTION

with a W&G

"Superlock"

for overseaming, hemming, edging and serging



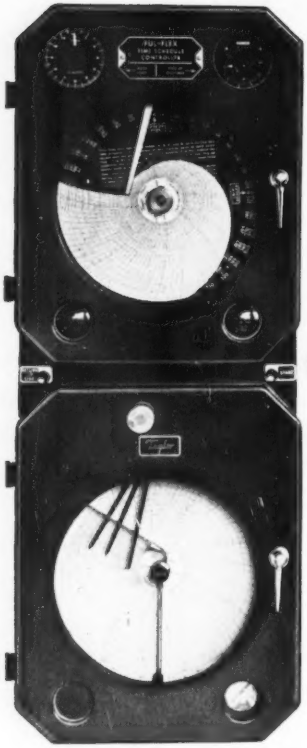
HIGH SPEED	One of the *fastest* overseaming machines in the world. Instantaneous starting and stopping.
AUTOMATIC LUBRICATION	All moving parts automatically oiled by a force-feed lubrication system. No hand oiling. No damage to fabrics from excess lubricant.
DIFFERENTIAL FEED CONTROL	Feeding conditions can be changed instantly while operating at full speed.
TRIMMING ADJUSTMENT	Semi-automatic trimmer control is available to permit changes in seam width while in operation.
AUTOMATIC HEM GUIDE CONTROL	Foot or knee lift control permits maintaining blind hem while crossing seams or bulky sections.
BALANCED DESIGN	Perfectly balanced, one-piece crankshaft eliminates separate eccentrics—assures quiet, vibration-free operation at all speeds.
STITCH TYPES	Two-thread Federal Stitch Types 502 and 503. Three-thread Federal Stitch Types 504 and 505. Stitch lengths up to ¼ inch obtainable.
INSTALLATION	Can be mounted flush with table top—semi-depressed—or on top of table.
VERSATILITY	Available in 58 different organizations, for wide variety of seaming, edging, hemming and serging operations.
OPERATION AND MAINTENANCE	Large looper eyes permit easy threading. All working parts accessible without removing machine from table.

For Complete Information **ask for your free copy of Bulletin No. 828.**

These "superlock" features all add up to more and better work with minimum time, effort and expense. That's why W&G "Superlock" machines are consistently maintaining the highest standards of production and economy throughout the industry. Why not see what they can do to reduce *your* sewing production costs, too?

WILLCOX & GIBBS
Sewing Machine Co.

214 West 39th St., New York 18, N.Y.



PUSH THIS BUTTON...

and Get Better Dyeing at Lower Cost!

YOU can save money on any kind of dyeing and get more uniform dyeing every time, with Taylor's automatic FULFLEX* Time Schedule Recording Controller.

1. No Cams to Cut. Operator simply sets three dials for *any* rate of rise, hold temperature and hold time.

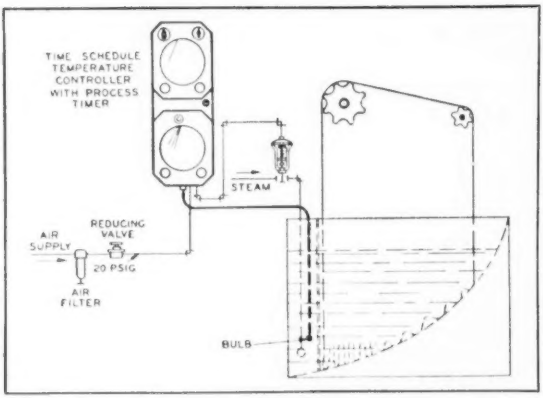
2. Operator just presses the button and Taylor Control signal light tells him when cycle is completed.

3. Repeats any part of the cycle. For additional rise and hold periods, if required, operator simply resets dials and presses the start button again.

4. Controlled rate of cooling is available as an optional feature.

This is just a single example of how Taylor is cutting costs, and improving product for textile mills all over the country. For the whole story, write for BULLETIN 98199, Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada.

Instruments for indicating, recording and controlling temperature, pressure, humidity, flow, liquid level, load, speed and density. *Trade-Mark



TAYLOR INSTRUMENTS MEAN ACCURACY FIRST IN:

PIECE DYEING
PACKAGE DYEING
BEAM DYEING
SKEIN DYEING
TOP DYEING

HOW TO SAVE MONEY ON SMALL-VOLUME BLEACHING

get increased uniformity . . . faster bleaching . . . lower bleaching costs

By Du Pont Continuous Peroxide Bleaching with the Butterworth "Junior" Unit

If your requirements call for a production capacity of 500 to 1,000 lbs. per hour, the Butterworth-Du Pont "Junior" Continuous Peroxide Bleaching Unit can give you the same low-cost, high-quality results that are possible with full-scale ranges.

This job-tested, space-saving bleaching system has been designed expressly for small-scale and specialty work. It is particularly suited for use in the following types of plants:

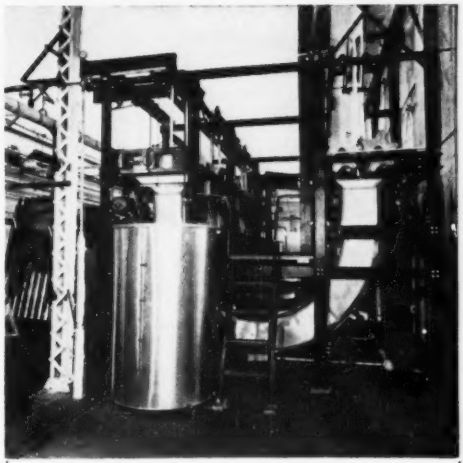
1. Small bleacheries and mills producing 100,000-300,000 yards per week of white goods, goods for dyeing and printing, colored yarn shirtings and fancy dress goods, or any combination thereof, in the 3-7 yds. lb. class.

2. Large bleacheries which have small lots (100,000-300,000 yds./week) of specialty fabrics which are not run in the regular continuous system because they are too small.

3. Mills processing tubular cotton knit goods.

Mills using the Butterworth-Du Pont "Junior" Unit have realized direct savings in money paid out for steam, chemicals, and operating costs. And this controlled process gives uniform bleaching, keeps fabrics strong, eliminates rehandling and most "seconds."

Du Pont does not build or sell bleaching equipment, but our Technical Servicemen are always ready to help you . . . in analyzing your needs, laying out a system, training personnel and starting operations. Find out more about continuous peroxide bleaching by mailing the coupon below today.



This two-stage Butterworth-Du Pont "Junior" Unit at Kerriglen Finishing Company, Providence, Rhode Island, has been in regular operation since May, 1950.

Archie Stevenson, President of Kerriglen, writes:

"Our 'Junior' Bleaching Range is producing between 3500 and 4000 yards per hour of 80 x 80 cotton print cloth suitably bleached for our printing process. Through use of the unit, there has been an appreciable saving in bleaching costs.

"The bleached cloth is extremely uniform and the full strength of the cloth is apparently retained."

DU PONT
CONTINUOUS PEROXIDE BLEACHING

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department, Wilmington 98, Del.

Please send me more information about Du Pont Continuous Peroxide Bleaching Systems.

Name_____ Title_____

Firm_____

Street & No._____

City_____ State_____

They did

This North Carolina mill saw the advantages to be gained in terms of increased production and reduced costs through a modernized drive.

what

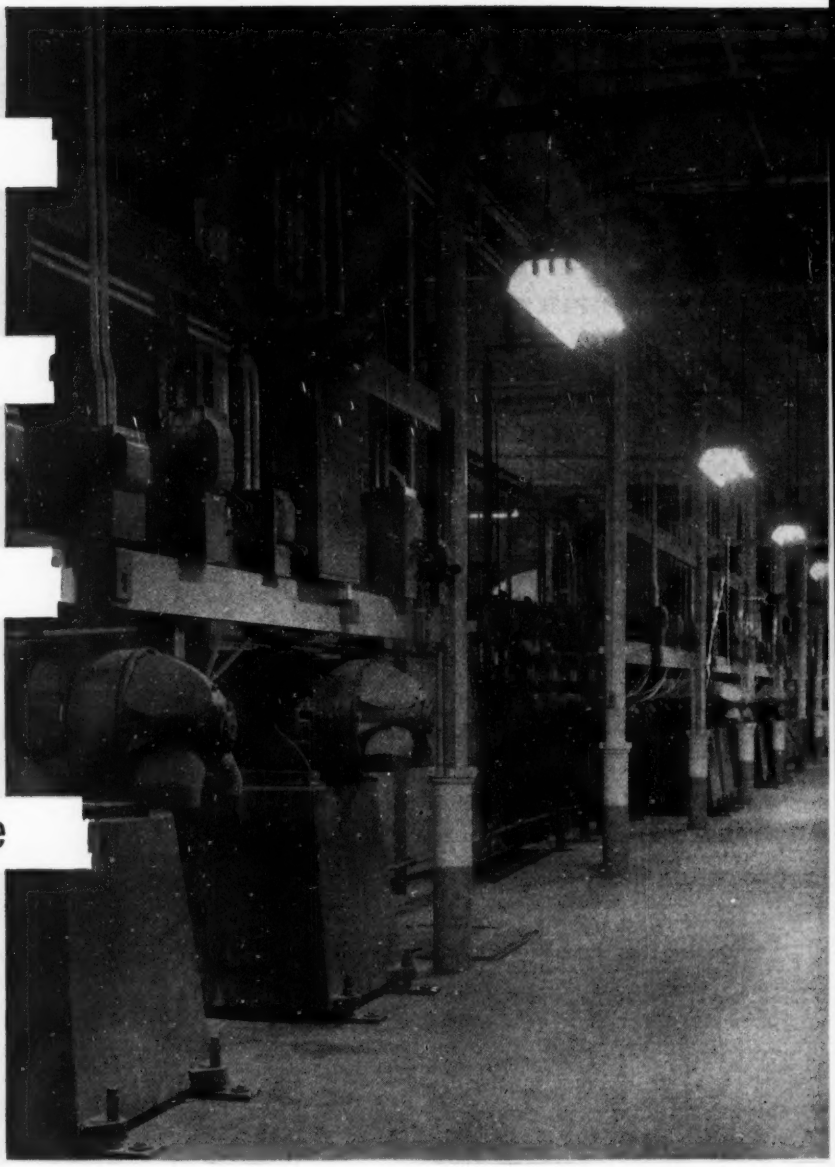
They called in their Westinghouse representative early in their plans to get the benefit of Westinghouse experience with similar installations.

you can do

Do what hundreds of other textile firms are doing. Have Westinghouse work with your engineers and the machinery builder in the application of drives and other equipment to your plant.

to produce more

Whether it's a new drive like this, more dependable and efficient electrical distribution, better servicing or simply the application of a piece of electrical equipment to a tough job, Westinghouse has the answer.



Choose *matched drives* for your finishing machines

That *extra* productive capacity that you want from your finishing machines often depends on "matching" the electrical drive to the textile process and productive requirements of each machine.

Extra production, for instance, can be obtained by running the range at the highest speed that the process and machine will permit. Westinghouse has designed drives that are operating ranges at 375 ypm.

High quality frequently depends on precise speed and tension control. *Low maintenance* is a result of well designed apparatus and the simplest system practical. *Reduced man-power requirements,* particularly important today, depend on the degree of automatic control. This also reduces the human judgment element and helps raise quality. *Versatility,* which permits operating individual sections of a range independently if desired, can be worked into the control system. All of these factors are functions of the drive.

That's why it's important to get a drive that is "matched" to your requirements. This can take the form of a "packaged drive" or of separate components mounted as desired. That's why Westinghouse recommends a thorough study of all factors before a drive is selected.

Your Westinghouse representative will be glad to help with your drive requirements . . . and he is backed by engineers and textile specialists with years of experience in the application of these drives to textile mills. They'll be glad to work with you and your finishing machinery builder on new drive requirements.

NEW FREE BOOK

Here's help, too—this 32-page book gives you factual information about Westinghouse finishing drives. Tells about tension control, cost factors, speed range, operating economies, maintenance features and other vital points. Write for Booklet B-4034, "Westinghouse Equipment for Textile Finishing". Westinghouse Electric Corporation, Box 868, Pittsburgh 30, Pennsylvania. J-94843

YOU CAN BE SURE.. IF IT'S

Westinghouse

EQUIPMENT FOR TEXTILE PRODUCTION

WESTINGHOUSE

"FEEL" isn't accurate enough to JUDGE MOISTURE CONTENT...

A Modern Southern Textile Mill

BARBER-COLMAN
Automatic Electronic
Moisture Content
Controller

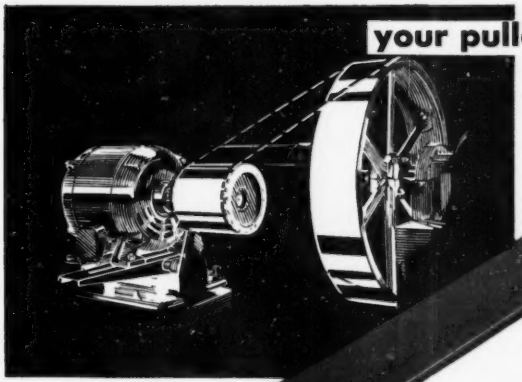
Depend on BARBER-COLMAN Electronic MOISTURE CONTENT CONTROL

Asking even the most experienced slasher hand to accurately judge moisture content of the warp by "feel" is unfair to human capabilities. This a job for devices such as the Barber-Colman Electronic Moisture Content Controller, which instantly and continuously identifies any change in moisture content by means of a sensitive *resistance-measuring* unit. This intelligence is transferred to a control cabinet through which the slasher drive motor is automatically speeded up or slowed down to compensate for the variation. The exclusive proportioning-with-reset action of the Moisture Content Controller assures positive and instantaneous control without hunting or hesitation at intermediate speeds. At the same time, the measured moisture content is recorded on a visible 24-hour circular chart. The result, proved time and again in many successful installations, is *increased slasher room production, increased weave room efficiency,* and *improved quality of goods.* Barber-Colman Electronic Moisture Content Control can be used in mills running practically any kind or count of yarn. Here is judgment that always renders a "favorable verdict"—let your Barber-Colman representative explain the possibilities of profitable use of M. C. C. in your own mill.

If you want a more detailed explanation, write for a copy of Bulletin F-3156.

BARBER COLMAN

BARBER-COLMAN COMPANY, 1201 Rock Street, Rockford, Illinois



Graton & Knight RESEARCH leather belt on short-center controlled tension motor base drive.

your pulleys will drive your machines only as well as your belts drive your pulleys

if you want more production, get GRATON AND KNIGHT® leather belting for more production-power

Get a Graton & Knight "Live Traction" Leather Belt — because it is engineered to transmit maximum uniform horsepower at correct speeds and sustained R.P.M. — with ample reserve for load peaks, and "fluid drive action" to absorb starting torque and load shocks.

For tough conditions, cross, shifter and idler drives, **HEART OAK** top grade center stock oak tannage. For short center, small pulley, cone pulley and serpentine *precision* drives, **RESEARCH®** premium quality. For ambient conditions (steam, oil, water, acid and alkali fumes) **SPARTAN®** combination tannage . . . Whatever your conditions, you'll get more production-power with Graton & Knight *Engineered* Leather Belting.

and *keep* your belts pulling for you

Stop belt slippage — prolong belt life with GRAKO® CLEAR Belt Dressing, result of 100 years experience in leather tanning and belt manufacture. Preserves and lubricates the fibres. Pint, quart and gallon cans — 5-gallon and 50-gallon drums. Send for circular.

New Belting Catalog and Manual shows how to get more production-power with leather belting. Our representative will deliver your (free) copy upon request. GRATON & KNIGHT COMPANY, Worcester 4, Massachusetts.

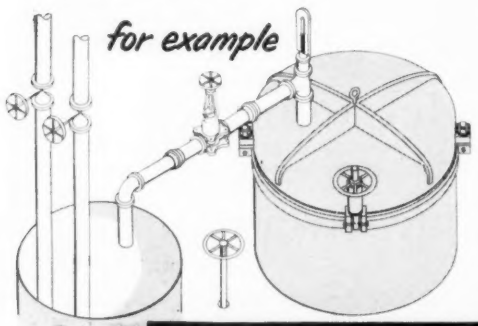
second centu G and K **engineered leather belting for more production-power**

GRATON AND KNIGHT® Estab. 1851

Is Corrosion Your Valve Problem?

...on Acid Solutions Like This,

for example



THE INSTALLATION

In acid dye line to package dye machine at Phoenix Dye Works, Chicago, Ill.

VALVE SERVICE RATINGS

SUITABILITY:	O.K. for acid dye solutions
MAINTENANCE COST:	None; lubrication only
CORROSION-RESISTANCE:	Excellent; No sign of corrosion
SERVICE LIFE:	Good as new after 3 years' constant service
OPERATING RESULTS:	No leakage; no production loss easier valve operation
PRICE:	In line with good alloy valves
AVAILABILITY:	Regular item in Crane alloy line

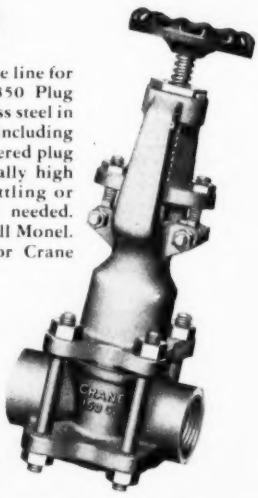
THE HISTORY

Various valves and cocks previously tried in this service gave much trouble with leakage and sticking, needing excessive maintenance and lasting only 1 to 2 months at best. Valve almost constantly in contact with varying acid dye solutions at temperatures ranging from 50 to 210 degrees F. Operated about 100 times daily, often with disc in throttling position.

Since installing a Crane No. 18850 all 18-8 Mo Stainless Steel Plug Gate Valve—more than 3 years ago—user reports: no leakage through valve . . . no sign of corrosion . . . no maintenance expense . . . unusually easy operation. Highly enthusiastic about Crane Plug Gate Valves.

THE VALVE

One of the finest in the Crane line for corrosive service—No. 18850 Plug Gate—with 18-8 Mo stainless steel in all parts exposed to flow, including packing gland. Circular tapered plug seating performs with equally high efficiency on precise throttling or where unrestricted flow is needed. These valves also made in all Monel. See your Crane Catalog or Crane Representative.



The Complete Crane Line Meets All Valve Needs. That's Why,

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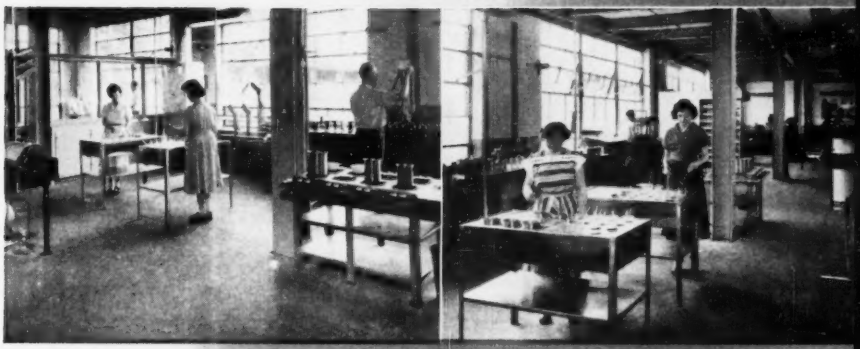
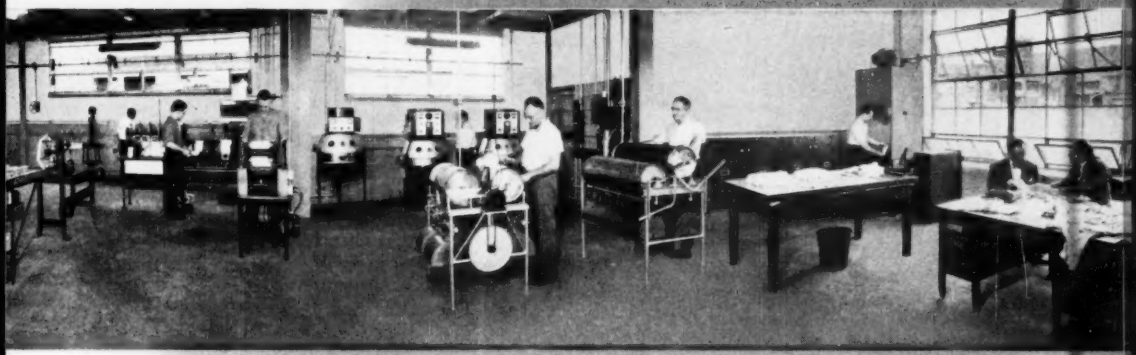


our modern service laboratories

assist you in solving your "dyeing problems"

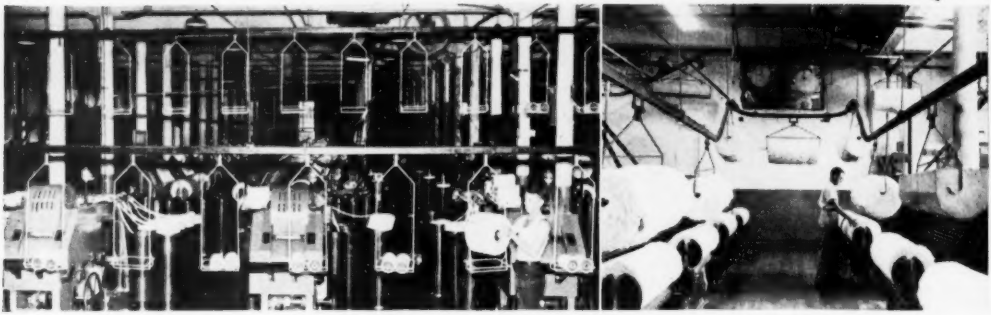


Send us your "dyeing problems." When we apply Althouse *original ideas* to them, together with our more modern methods of manufacture and our exclusive, built-to-order equipment, we'll come up with a practical, workable solution to enable you to use your own dyehouse technique. Make use of this free service. A few of our new, model dyeing laboratory departments are illustrated.

ALTHOUSE
Chemical Company, Inc.
READING, PENNSYLVANIA

pace-setter in precision dye-making

✓ Check our textile mill testimony!



Learn how others Increase Efficiency... Reduce Costs... with

"Zig-Zag"®

Continuous Power Conveyors

Yes, "Zig-Zag" Continuous Power Conveyors, designed and manufactured exclusively by Richards-Wilcox, are serving production and processing lines in leading textile mills and in practically every other type of plant. In every instance, the increase in productivity and reduction in handling costs has resulted in savings of many thousands of dollars. Specifically designed to carry light loads through confined, crowded areas, "Zig-Zag" breaks costly bottle-necks, steps up production, and releases workers for other important jobs in the plant.

"Zig-Zag" Saves Textile Mill $10,000 Annually!

Recently a leading textile mill* installed a "Zig-Zag" Conveyor to handle knitting yarn between the spinning room and winders. Four yarn men were then available for other work; oily yarn, mixed yarn, and winder-operator complaints were reduced to a minimum. Not only are annual savings estimated at $10,000, the "Zig-Zag" Conveyor quickly *paid for itself!* For indisputable evidence of the savings effected by R-W patented "Zig-Zag" Conveyors in the textile industry, and for full information about putting "Zig-Zag" to work for *you*, write, phone or wire our nearest office.

(*) Name on request.

ENGINEERED FOR ECONOMY AND FLEXIBILITY

- Horizontal and vertical units alternate in a continuous chain traveling through special steel tubing.
- Complete flexibility for installation in any plant. Easily installed, easily changed to conform to plant alterations.
- SAFE—all moving parts fully enclosed.
- Low first costs. Low Power Factor.
- Standard horizontal or vertical curves —two-foot radius.

1880 RICHARDS WILCOX R-W AURORA 1952

OVER 72 YEARS

Richards-Wilcox Mfg. Co.

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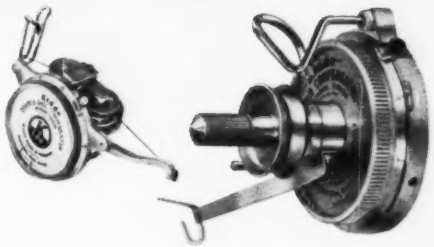
ELEVATOR DOOR OPERATING EQUIPMENT

Mill after mill has reported that Kidde Tension Compensators have practically eliminated spoilage due to tension problems. Today more than 500 leading mills rely on Kidde Compensators to regulate tensions.

The Standard Model is designed for moderate speeds and tensions. It is recommended for use at speeds up to 300 yards per minute. It has proved successful in quilling nylons and rayons, in warping rubber yarns and in winding narrow fabric bobbins.

The Double Disc Model can maintain constant tension at speeds up to 1000 yards per minute. Many mills find it particularly suited for tender high twist yarns.

For full information on Kidde tension compensators, fill in and send the coupon.



Standard Model 6 to 120 grams 100 to 300 grams — *Double Disc Model* 10 to 140 grams 100 to 300 grams

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Walter Kidde & Company, Inc.
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Please send me additional information on how Kidde Compensators can solve my tension problems.

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Designers and Manufacturers Textile Metal Products

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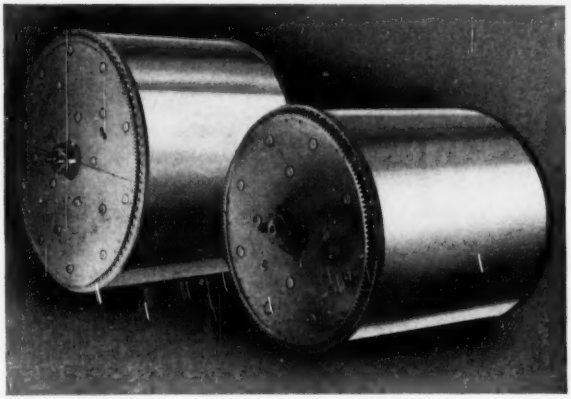
Slasher Cylinders

The Textile Shop's long experience in building new and repairing old slasher cylinders makes it the South's most dependable source for this type equipment. Our cylinders can be furnished with stainless steel or copper shells. An exchange service is operated for your convenience—there is no extra charge for this service. Write or phone for details.

We modernize slashers by installing third cylinder, whereby the drying capacity is increased from 15% to 75%. No additional floor space is required by this installation.



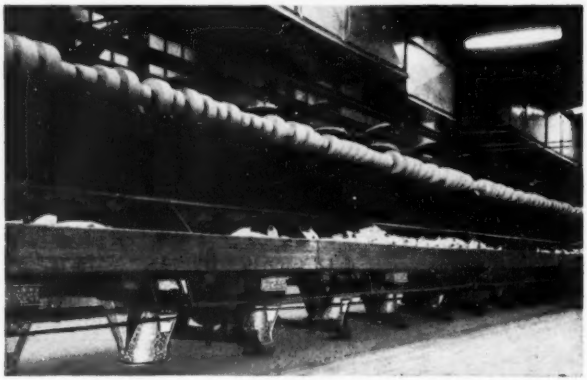
Patented Vacuum Cleaning Systems

for

Automatic Spoolers, Nappers, Warpers

(Patents Nos. 2057139, 2140420, 2120888, 2125774, 20917)

This is the only patented cleaning system that collects lint, fly and dust from supply boxes, bobbin pockets, sneak plates and rotating cheeses. The fly is collected by hoppers and conveyed through filters, whence the cleaned air is re-circulated.



This system is installed on thousands of spindles in the North and South. Some of the results achieved are:

1. 93% Lint and Dust Collected.
2. 20% Less Cloth Room Seconds.
3. Less Gouts in Yarn.
4. Fewer Loom Stops.
5. No Stops for Cleaning.
6. Less Shed in Weave Room.
7. A Better Product.
8. Better Working Conditions in the Mill.
9. Less Machinery Wear.
10. Increased Production.
11. Less Operative Cost.

(Letters in Our File)

(Pays over 20% on Investment)

12. *Maximum Cleaning with Minimum H. P.*

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Wherever they are, whoever they are, no matter what tongue they speak, these firms are the elect of the business world...the "Social Register" of the world's textile industry.

Through them, and on down through their customers and their customers' customers, the famous "Sanforized" trade-mark is known, respected and demanded wherever textiles are sold in the world today.

We remove our hats, and we spin our "Sanforized" world, in tribute to our splendid licensees!

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C. A. TELARES DE MARACAY ..... Maracay (Aragua)

UNITED STATES

ALABAMA MILLS, INC. ..... Wetumpka, Ala.
AMERICAN FINISHING COMPANY ..... Memphis, Tenn.
APONAUG MANUFACTURING CO. ..... Kosciusko, Miss.
APPLETON COMPANY, (Division of J. P. Stevens & Co., Inc.) ..... Anderson, S. C.
THE APPONAUG COMPANY ..... Apponaug, R. I.
ARMS TEXTILE MANUFACTURING CO. ..... Manchester, N. H.
ARNOLD PRINT WORKS DIV. (The Aspinook Corp.) ... Adams, Mass.
THE ASPINOOK CORPORATION ..... Jewett City, Conn.
AVONDALE MILLS ..... Alexander City, Ala.
AVONDALE MILLS ..... Pell City, Ala.
AVONDALE MILLS ..... Sylacauga, Ala.
JOS. BANCROFT & SONS CO. ..... Wilmington, Del.
BELLMAN BROOK BLEACHERY CO. ..... Fairview, N. J.
BRADFORD DYEING ASSOCIATION (USA) ..... Westerly, R. I.
BROWN MANUFACTURING CO. ..... Concord, N. C.
BURLINGTON MILLS CORPORATION, Cramerton Mills Division ..... Cramerton, N. C.
CANTON COTTON MILLS ..... Canton, Ga.
CHICOPEE MANUFACTURING CORPORATION ..... Chicopee Falls, Mass.
CLEARWATER FINISHING CO. ..... Clearwater, S. C.
COLD SPRING BLEACHERY, INC. ..... Yardley, Pa.
CONE MILLS CORPORATION—Cone Finishing Co. Plant ..... Greensboro, N. C.
CONE MILLS CORPORATION—Haynes Plant ..... Cliffside, N. C.
CONE MILLS CORPORATION—White Oak Mill ..... Greensboro, N. C.
CONE MILLS CORPORATION—Proximity Mill ..... Greensboro, N. C.
CONE MILLS CORPORATION—Revolution Division ..... Greensboro, N. C.
CONE MILLS CORPORATION—Salisbury Plant ..... Salisbury, N. C.
CONE MILLS CORPORATION—Minneola Plant ..... Gibsonville, N. C.
CONSOLIDATED TEXTILE CO.—Windsor Print Division ..... North Adams, Mass.
CRANSTON PRINT WORKS COMPANY ..... Cranston, R. I.
CRANSTON PRINT WORKS COMPANY ..... Webster, Mass.
CRANSTON PRINT WORKS COMPANY ..... Fletcher, N. C.
CROMPTON-SHENANDOAH CO. ..... Waynesboro, Va.
CRYSTAL SPRINGS BLEACHERY ..... Chickamauga, Ga.
DAN RIVER MILLS, INCORPORATED ..... Danville, Va.
DEMPSEY BLEACHERY & DYE WORKS CORP. ..... Pawtucket, R. I.
ERWIN MILLS INCORPORATED ..... Cooleemee, N. C.
ERWIN MILLS INCORPORATED ..... Erwin, N. C.
ERWIN MILLS INCORPORATED ..... Stonewall, Miss.
EXETER MANUFACTURING COMPANY ..... Exeter, N. H.
FAIRFOREST COMPANY—Eagle & Phenix Division ..... Columbus, Ga.
FAIRFOREST COMPANY—Fairforest Fin. Div. ..... Spartanburg, S. C.
FRUIT OF THE LOOM, INC.—Pontiac Finishing Plant ..... Pontiac, R. I.
GLENCOE MILLS ..... Burlington, N. C.
GLENLYON PRINT WORKS ..... Phillipsdale, R. I.
GOLD-TEX FABRICS CORP.—Mill Division ..... Rock Hill, S. C.
GOODALL-SANFORD, INC. ..... Sanford, Maine
GREAT FALLS BLEACHERY & DYE WORKS, INC. ..... Somersworth, N. H.
GRANITEVILLE COMPANY—Gregg Division ..... Graniteville, S. C.
GRANITEVILLE COMPANY—Sibley-Enterprise Division ..... Augusta, Ga.
HAMPTON MILLS, INC. ..... Easthampton, Mass.
HARTSVILLE PRINT & DYE WORKS ..... Hartsville, S. C.
HIGHLAND PARK MANUFACTURING CO. ..... Charlotte, N. C.
INDUSTRIAL COTTON MILLS CO., INC. ..... Rock Hill, S. C.
A. D. JUILLIARD & CO., INC.—Oneida Bleachery Div. ..... New York Mills, N. Y.
KERR BLEACHING & FINISHING WORKS, INC. ..... Concord, N. C.
LANETT BLEACHERY & DYE WORKS ..... West Point, Ga.
LANE COTTON MILLS COMPANY ..... New Orleans, La.
LONSDALE COMPANY—(Lincoln Bleachery) ..... Lonsdale, R. I.
LOWELL BLEACHERY, INC. ..... St. Louis, Mo.
LOWELL BLEACHERY SOUTH ..... Griffin, Ga.
ANDREW Y. MICHIE & SONS CO. ..... Philadelphia, Pa.
THE MILLVILLE MANUFACTURING CO. ..... Millville, N. J.
MOORESVILLE MILLS ..... Mooresville, N. C.
NATIONAL DYEING & FINISHING CORPORATION ..... Culver City, Cal.
NEW BRAUNFELS TEXTILE MILLS ..... New Braunfels, Texas
NEWBURGH BLEACHERY ..... Newburgh, N. Y.
NORTH CAROLINA FINISHING COMPANY ..... Salisbury, N. C.
PACIFIC MILLS ..... Lyman, S. C.
PACOLET MANUFACTURING CO. ..... New Holland, Ga.
PEE DEE TEXTILE COMPANY, INC. ..... Rockingham, N. C.
PEPPERELL MANUFACTURING COMPANY ..... Lewiston, Me.
PEPPERELL MANUFACTURING COMPANY ..... Lindale, Ga.
PEPPERELL MANUFACTURING CO.—Alabama Div. ..... Pepperell, Ala.
PILOT MILLS CO. ..... Raleigh, N. C.
PLYMOUTH FINISHING CO., INC. ..... Fall River, Mass.
PROVIDENCE D. B. & C. CO. ..... Providence, R. I.
PURITAN LOOMS, INCORPORATED ..... Philadelphia, Pa.
RENFREW BLEACHERY—(Brandon Corp.) ..... Travelers Rest, S. C.
RIEGEL TEXTILE CORPORATION—Ware Shoals Division ..... Ware Shoals, S. C.
RIEGEL TEXTILE CORPORATION—Trion Division ..... Trion, Ga.
ROANOKE MILLS COMPANY—Mill No. 1 ..... Roanoke Rapids, N. C.
ROBERTSON BLEACHERY & DYE WORKS ..... New Milford, Conn.
ROCK HILL PRINTING & FINISHING CO. ..... Rock Hill, S. C.
THE RUSSELL MFG. CO., INC. ..... Alexander City, Ala.
SAYLES-BILTMORE BLEACHERIES, INC. ..... Biltmore, N. C.
SAYLES FINISHING PLANTS, INC. ..... Saylesville, R. I.
PHILIP L. SHEERR & SONS ..... Frankford, Philadelphia, Pa.
SLATERSVILLE FINISHING CO., (Division of Kendall Mills) ..... Slatersville, R. I.
SOUTHBRIDGE FINISHING COMPANY ..... Southbridge, Mass.
SOUTHERN BLEACHERY & PRINT WORKS, INC. ..... Taylors, S. C.
SPRINGS COTTON MILLS (Grace Bleachery) ..... Lancaster, S. C.
STANDARD BLEACHERY & PRINTING CO., INC. Carlton Hill, N. J.
J. P. STEVENS & CO., INC.—Delta Company Division ..... Frankford, Philadelphia, Pa.
J. P. STEVENS & CO., INC.—Delta Company Division ..... Cheraw, S. C.
J. L. STIFEL & SONS, INC. ..... Wheeling, W. Va.
SUMMERDALE DYEING & FINISHING CO., INC. ... Holmesburg, Pa.
SWIFT MANUFACTURING COMPANY ..... Columbus, Ga.
TEXAS TEXTILE MILLS ..... McKinney, Texas
TEXAS TEXTILE MILLS ..... Waco, Texas
TEXTRON, INC.—Nashua Division ..... Nashua, N. H.
TEXTRON-SOUTHERN, INC.—Finishing Div. ..... Anderson, S. C.
THOMASTON MILLS—Bleachery Div. ..... Thomaston, Ga.
UNION BLEACHERY DIV. (The Aspinook Corp.) ..... Greenville, S. C.
THE UNITED STATES FINISHING COMPANY ..... Norwich, Conn.
THE UTICA WILLOWVALE BLEACHING CO. ..... Chadwicks, N. Y.
WERTHAN BAG CORPORATION ..... Nashville, Tenn.
WHITE BROTHERS, INC. ..... Winchendon Springs, Mass.
YATES BLEACHERY CO. ..... Flintstone, Ga.

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Cluett, Peabody & Co., Inc. permits use of its trade-mark "Sanforized," adopted in 1930, only on fabrics which meet this company's rigid shrinkage requirements. Fabrics bearing the trade-mark "Sanforized" will not shrink more than 1% by the Government's standard test.

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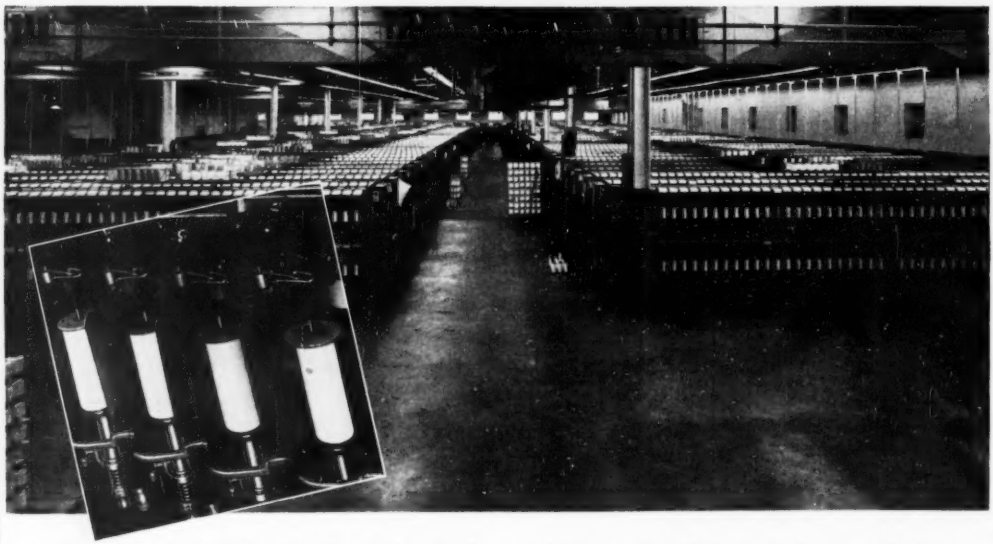
ROLLER BEARING SPINDLES

with FULL-FLOATING FOOTSTEP BEARING



Starting in 1946 with a single test frame of Marquette Spindles, this mill now has more than 21,000 in operation.

Not only here, but *in every mill where they have been tested,* Marquette Spindles have demonstrated their ability to produce MORE YARN at LOWER COST. They operate efficiently at high speeds with large packages, and give important savings in power consumption and maintenance.

We'll be glad to arrange for a test installation to prove that Marquette Spindles can accomplish the same results in *your* mill. Contact our home office or one of our representatives.

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Textile Industries
Vol. 116 • Feb. 1952

News in Brief

Extending Incentive Stock Option Plans to Employees at Lower Levels. Since approval of certain types of restricted stock option plans by the Salary Stabilization Board, the American Institute of Management recommends that these incentives be extended to as many company employees as possible, rather than be confined to a small group of top executives. An analysis of 150 plans put into effect, since the Internal Revenue Code was amended to treat profits accruing from such plans as a long-term capital gain rather than income, is in the Institute's report.

Controlled Hosiery Production? At a zonal conference called by the National Association of Hosiery Manufacturers, participants said that systematic curtailment or industry-wide regulation of production seemed to be the only way to stabilize the hosiery market. The meeting was held in Reading, Pa.

Army Waste Reduction Plan. Col. Clinton J. Harrold, Office of the Quartermaster General, recently told the Atlanta chapter of the Quartermaster Association that a program of "cost consciousness" is being initiated throughout the armed forces. The program is aimed at getting the most out of each dollar spent and the last ounce of serviceability from every item of clothing and equipment, he said.

Mill Depreciation Inadequate. "In this period of high taxes which are absorbing a substantial part of real profits, the mills are still being forced to operate under antiquated and unrealistic depreciation allowances," said John A. McPherson, Sr., textile mill engineer of Greenville, S. C. Mr. McPherson said also that the textile industry's entire capital structure is in jeopardy because of the inadequate depreciation allowances.

Discourtesy to Guest Speaker. Mill men are still talking about the discourtesy shown a political guest speaker at one of the textile meetings. Not realizing the full import or purpose of the speaker's presence at their session, some of those who disagreed with him chose that opportunity to interrupt and disconcert him with noise and movement. The opinion was ex-

"THE AMERICAN TEXTILE INDUSTRIES"

(Available upon Request)

" . . . . received a copy of the chart entitled 'The American Textile Industries' . . . . only one who has tried to develop similar information on a smaller scale can appreciate the magnitude of the job that was involved in preparing this chart with its interesting and informative statistics. It will certainly make a very valuable addition to our files. This is the first time that all of this information has ever been compiled and combined into one comprehensive statement, and it will serve a very useful purpose in the work of our association. . . "—**Ted Forbes, Executive Vice-President, Cotton Manufacturers Association of Georgia.**

" . . . . thank you for chart. . . it is most interesting and valuable, and I should like to compliment both you and your staff on its preparation. . . . "—**Sidney S. Korzenik, Executive Director & Counsel, National Knitted Outerwear Association.**

" . . . . thanks . . . . unusual chart 'The American Textile Industries' . . . . rather new and different idea, with authentic touch. . . . "—**Dwight M. Wilhelm, Executive Vice-President, Alabama Cotton Manufacturers Association.**

The chart referred to is entitled "The American Textile Industries." It was prepared as a service for the textile industry, to be used by those who have need for reference material or who wish to emphasize the size, scope, and importance of the industry in this country.

The listings contain the forty type classifications of the broader textile industry by state and number of employees, e.g., Cotton Broad Woven Fabric Mills, Rayon and Related Broad Woven Fabrics Mills, Yarn Mills Cotton System, Narrow Fabrics Mills, Full-Fashioned Hosiery Mills, Knit Outerwear Mills, Scouring and Combing Plants, Finishing Mills, Lace Goods, Cotton Cordage and Twine Mills, etc.

To Secure Copies: The 22x34-inch chart will not appear in the magazine. One copy will be sent to readers who request it directly from the editors.

Is TEN YEARS permanent enough for you?

TAKE-UP ROLLS of TEXALOX roll covering, created expressly for the textile industry by CARBORUNDUM, have been on the job in many a mill—*in many cases running continuously for ten years without replacement or showing evidence of wear.*

TEXALOX covering outlasts rubber or cork—never gets slippery or gummy. It won't "shed", like sand or garnet paper covering. It can't rust, like perforated tin. It never loses its built-in ability to exert a firm, gentle grip on the fabric.

It also prevents chafe and cut marks—doesn't accumulate dirt or grease—doesn't loosen or wrinkle—is unaffected by moisture, dyes, oil and grease.

That's why it gives you a perfect, clean fabric—with complete assurance of delivery of definite lengths of material.

TEXALOX roll covering comes in handy 3-inch wide strips, and in a special surface for each type of textile, from the sheerest nylon to the heaviest duck. Try it on your looms now. We'll gladly send you a sample length, free of charge. Ask your CARBORUNDUM or distributor salesman—or write Dept. TI 82-63

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sure-grip take-up roll covering by CARBORUNDUM

TRADE MARK

"Carborundum" and "Texalox" are registered trademarks which indicate manufacture by The Carborundum Company, Niagara Falls, N. Y.

82-63

pressed by better behaved and understanding members that a golden opportunity for the industry and much previously expended time went down the drain during that brief address.

No More Textile Abstracts. Textile Research Journal subscribers will not receive monthly copies of the Textile Abstracts prepared by the staff of The Textile Institute of Great Britain, which are published monthly in the "Journal of the Textile Institute." A spot check has revealed that, of those who make definite use of abstracts, a majority subscribe also to the British Journal in which the abstracts appear.

Imports from India. During the first seven months of 1951 India exported to the United States about 20 million yards of cotton cloth; this compares with 1.3 million yards in 1950.

Textile Town Gets $100,000 Donation. To "show our interest in the town," Whitin Machine Works gave $100,000 in cash to the town of Whitinsville, Mass. The gift was in view of "a very good year."

Clothing Promotion. Nine organizations representing the men's clothing and furnishings industries have launched a merchandising campaign.

Italy Wants Full-Fashioned Machines. Italian manufacturers are planning increased production of high-quality nylon hosiery, and the demand for U. S. full-fashioned hosiery knitting machines in Italy continues unfilled.

Pacific Mills' Scholarships. To help meet the growing need of hospitals for specially trained men and women to manage hospital laundries, Pacific Mills has provided ten scholarships for a course in Hospital Laundry Management to be given over a seven-week period at State University of Iowa during March and April, 1952.

Textiles in Pakistan. Pakistan expects to be largely sufficient in cotton textiles by 1954, if the present program for developments of the industry can be completed within that time. Output has increased about 25 per cent since the effort began in 1948, and plans to build 35 new cotton mills are under way.

OPS KEEPS TRYING

The Office of Price Stabilization issued its CPR 22 last April 25, and since that time manufacturers have been trying to work with the additions to the order as follows:

34 amendments
33 interpretations
19 supplementary regulations
24 amendments to supplementary regulations

Also, OPS has issued a fact-finding sheet, a 12-page printed guide, and several additional forms or applications, all pertaining to CPR 22. OPS has also issued 103 other ceiling price regulations.

News in Brief

2000 Miles of Fabric Given. Textile mills of the U. S. have given more than 2000 miles of fabric to the American Friends Service Committee for distribution to war orphans and needy men and women in war-torn countries. The figures include donations for the past four years.

Ruinous Taxes Loom. "More ruinous and more despotic" taxes are in store for low, middle, and high income groups alike unless Congress holds the 1953 budget below the present spending level which is approaching $70 billion a year, according to D. A. Hulcy, President of the National Chamber of Commerce. "Already a family with an income of $3,500 pays

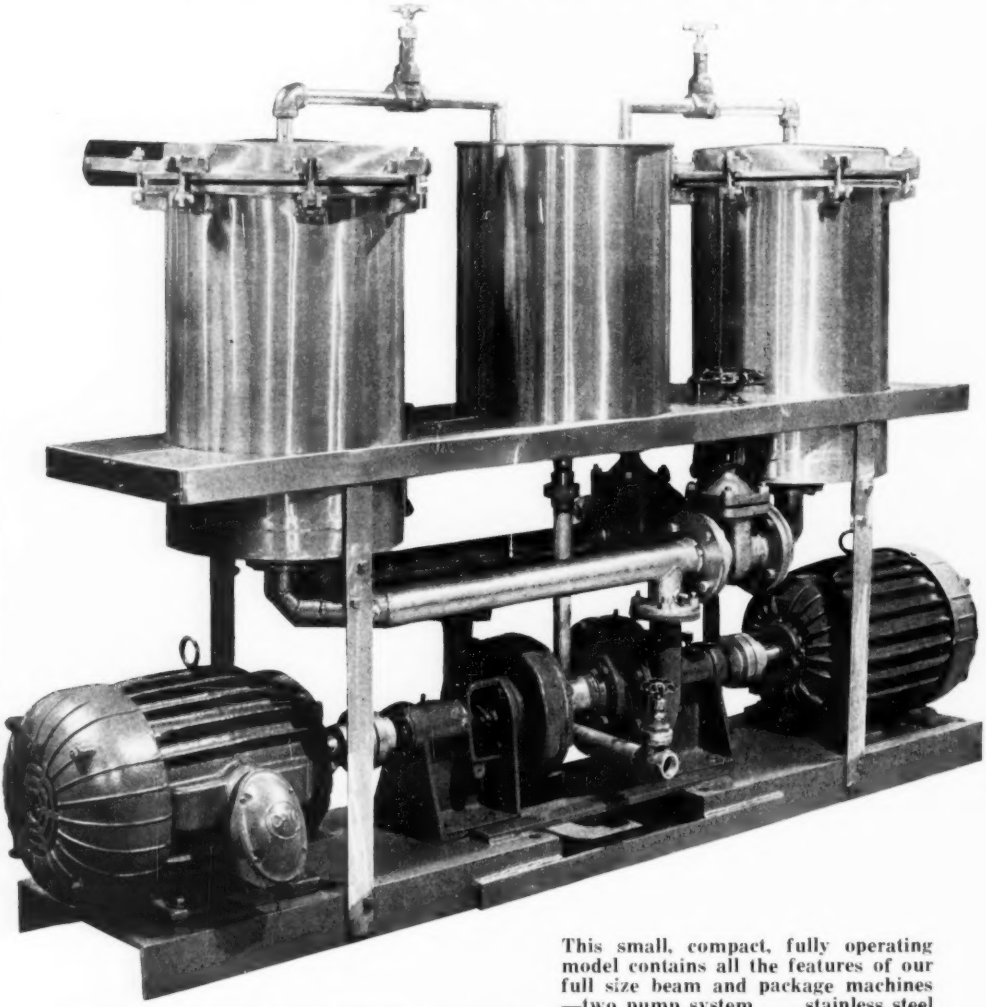
ELECTRONICALLY CONTROLLED THREAD PLANT

This is "Nymoville," Belding Corticelli's two-million-dollar plant which was officially opened in Hendersonville, N. C., on Dec. 3 to manufacture bonded, non-twisted threads by the firm's exclusive "Monocord" process.

Novel feature of the plant, which is constructed of brick and insulated aluminum panel walls, is that production flow and quality will be controlled by approximately 5000 electronic tubes.

Interior of the plant is completely air conditioned and illuminated by fluorescent lights. Concrete flooring and automatic dust eliminating devices keep processing areas free of lint and contamination. Rest rooms, canteens, and infirmaries are spotted throughout the plant which is heated and powered by petroleum and liquid propane.

HERE'S A HANDY MACHINE FOR TESTING SAMPLE LOTS IN THE DYE HOUSE



This small, compact, fully operating model contains all the features of our full size beam and package machines —two pump system . . . stainless steel construction . . . direct piping system . . . greater dyeing efficiency. By using it to run sample lots of dyed yarns, you will save time and expense in the elimination of dyeing problems before they become acute. The savings in your dyeing process will equal the initial cost in a very short while. Why not investigate the savings possible in your plant?

Burlington ENGINEERING COMPANY, INC.

TELEPHONE 6-4478 BURLINGTON N.C. GRAHAM, N.C.

more than $900 in direct and hidden taxes, and as the spending and taxing continue, the low income groups are of necessity being forced to shoulder burdens of taxation known only in the days of the greatest despots," he said.

Cotton Production Problem. Cotton industry leaders are confronted with the knotty problem of inadequate supplies for producing the 1952 crop, according to Claude L. Welch, of the National Cotton Council. Gloomiest outlook in production supplies is in the fields of labor, farm machinery, and certain types of fertilizer, he stated.

Trial for Hosiery Plasticize Machine. Arrangements have been made by the British Schuster Co., Ltd., to test its plasticizing machine in an American hosiery plant. The firm plans to market the machine in the U. S. The plasticizing machine eliminates preboarding in the production of full-fashioned hosiery.

Acetate Information Bureau. To aid mills and converters in complying with the new fair trade practices relating to fiber identification of acetate and rayon content in goods, Celanese Corporation has established an Acetate Information Bureau which will furnish fiber identification material suitable for use with the yarns and fabrics.

60th Anniversary for Standard-Coosa-Thatcher. Manufacturers of Standard Durene and S-C-T industrial sewing threads, Standard-Coosa-Thatcher Co. has distributed a 50-page book commemorating its 60th anniversary. The book is titled, "The Story behind the Story of Standard-Coosa-Thatcher Company."

Army Tests Plastic Underwear. Four army technicians, clad in the Army's newly developed two-piece plastic underwear, recently tested the garments by wearing them into a river lagoon. When the four men emerged from the lagoon the temperature on various parts of their bodies ranged from 52.7 to 67.2, which indicates that normal body heat may return quickly after a drenching. The garments are to be tested under all conditions, including the dry cold weather of the arctic.

Contest on "Loopless Toe Stockings." The Full-Fashioned Hosiery Investigating Committee has been joined by more than 80 full-fashioned hosiery manufacturers to oppose the Julius Kayser & Company's request that producers sign license agreements and pay a 2 cents-a-dozen royalty on all "loopless-toe" stockings made in accordance with the company's patents.

70% of Duck Looms on QM Orders. The latest government request for over 30 million yards of plied duck requires the output of approximately 70% of all regular plied duck looms. The military goods should keep these looms busy through June of 1952.

Courses in Fiber Testing. The American Cotton Manufacturers Institute has scheduled courses in cotton fiber testing for 1952 at the Institute's Division of Technical Service at Clemson, S. C. One course started on January 7; others are scheduled to begin on March 17, May 19, August 4, and October 20.

LABOR RULINGS

121 firms have received special learner certificates authorizing the employment of learners at hourly rates below statutory minimum. The Wage-Hour Administrator issued the certificates to firms in the apparel, knitted-wear, hosiery, and other industries.

U. S. Court of Appeals ruled that time before and after shifts spent by foremen and assistant foremen in conferring on work and handing out gate passes to departing employees is work time for which overtime compensation is due.

News in Brief

Textile Equipment Manufacturers Convert. Over thirty textile equipment suppliers have converted to production of machine tools and defense work, but conversion to making of machine tools is said not to be feasible to any substantial extent because only about 10% of the companies have adequate facilities.

Japan's Silk Industry. Although Japan has been and still is holding a high rank over all other silk producing countries of the world, its markets have been very limited. The export of raw silk in 1950, the post-war highest, was barely 95,000 bales, as compared to the average for 1930-34 of 515,000 bales, or only 18.4 per cent

(*Continued on page 219*)

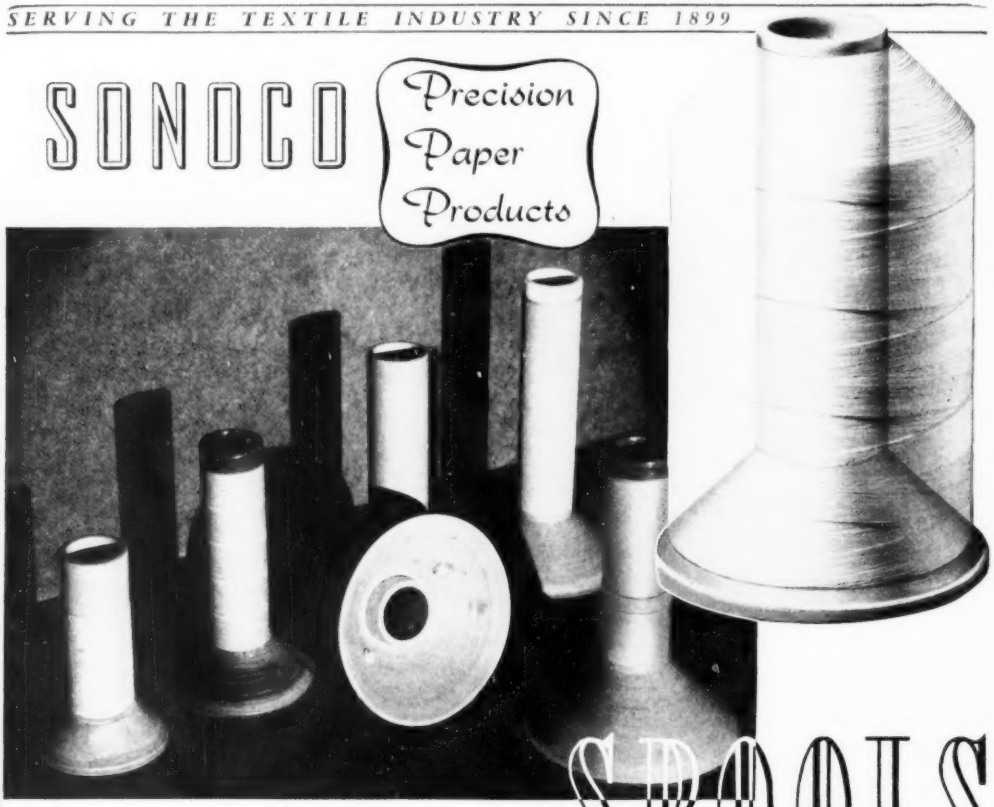
FIBERGLAS MARQUISETTES ON TV

Garry Moore, popular television entertainer, learns how easy it is to wash Fiberglas marquisettes, under the watchful eye of Jane Pursch, director of consumer service for Owens-Corning Fiberglas Corporation. The daytime Garry Moore show will be employed to help sell Fiberglas marquisette curtains in 37 of the nation's leading trade areas.

SERVING THE TEXTILE INDUSTRY SINCE 1899

SONOCO

Precision Paper Products



SINGLE HEAD SPOOLS

Another exclusive Sonoco development for packaging industrial threads. Constructed with a flush base which is tapered to permit smooth uniform tension to sewing machine. Available in a range of base diameters and barrel lengths with special surfaces. Colored lacquer tips can be ordered for identification.

Assembling Single Head Thread Spools from the molded bases and the precision made barrels.

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DEPENDABLE SOURCE OF SUPPLY

AN EXECUTIVE Views THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

More on ECA

IN THE NOVEMBER issue we had some rather harsh things to say about the ECA teams which have come to this country in the years since World War II, and which have been sponsored by the American government. As a result of that article we have received several communications, some praising us, some blaming us, but all of them interestingly written.

We used to know a man who said he didn't mind people talking about him and that the only time he worried was when they ignored him. That sort of sums up how we feel about letters to the editor or his "columnist."

One letter in particular evidences a very deep knowledge of the British textile industry, of the British economy, and of the circumstances surrounding ECA missions to America. One or two comments made by the author of this letter will, we believe, bear repetition.

Our correspondent expresses the opinion that more might have been accomplished if the missions had been sponsored by individual firms who had taken prior commitments to modernize their plants, and he adds that whatever results might have been forthcoming from the ECA missions were in part strangled by British governmental policies.

"The fact of the matter," he said, "is that the Socialist government, during the time when Britain should have been embarking on increased individual initiative and expansion of plant and equipment, did everything to frustrate individual initiative and reduce all activities to the mass idea developed under controls."

We may not agree with the British on everything, but we can certainly agree with the writer of this letter that England has frustrated individual initiative. We can go further than that and say that for nearly twenty years our own government in America has grown progressively more frustrating.

Whose Ox?

Manufacturers of automobiles, radios, and refrigerators have sometimes been lyric in their praise of ECA because no one in his wildest nightmare would ever imagine that the "ill-fed" countries of the world could compete with Detroit and Schenectady. The textile industry, however, does not have the protection afforded by patents, assembly lines, and steel shortages. In the final analysis then, this whole question boils down to one of whose ox is gored. A man with aching feet always thinks comfortable shoes are the most important things in the world.

In textiles we are well aware of the fact that the Japanese, the Indians, and many other peoples are producing yarns and fabrics at a high rate and that all they need to drive us out of the market is a little more skill and a little more modern machinery. ECA is busily engaged in trying to provide them with both. It might be well for us to pause a moment and hope that ECA will also have the forethought to provide jobs for the hundreds of thousands of American textile operatives who may one day stand beside idle looms and spinning frames.

Selling Research

Industry-Wide. When textile researchers and scientists get together, one of the most consistent subjects of conversation is how to sell industry-wide top management on the value of research and on the importance of the job that researchers are doing. Many researchers in the textile industry feel that top management does not have the same keen appreciation for research and scientific exploration that they themselves possess.

To a large extent their summation of the circumstances is in keeping with the existing condition. That is bad for all parties concerned and is especially detrimental for the future of the textile industry.

In some quarters the contention has been that the textile schools are to blame for management's lack of appreciation for research—because they don't get across to future management the fact that research is valuable; and it is in the textile schools that the "selling" should be done, according to those adhering to this philosophy.

Inasmuch as the textile schools at one time or another have been cited as the cause for nearly everything wrong with the textile

12 times faster!

Grades 1000-foot sample of yarn in 3 minutes!

• With the Uniformity Analyzer, originally designed by the Institute of Textile Technology, you can check and grade the uniformity of yarn, roving, or sliver at high speeds. Using the recommended sample for accurate measurement—about 1000 feet—you can make the check in a little over 3 minutes, compared to 40 minutes for other methods.

The answer is given to you completely—in writing. In addition, the operator has a meter, which indicates average wool or cotton count or percentage non-uniformity.

CHECK THESE FEATURES OF THE UNIFORMITY ANALYZER!

HIGH GRADING SPEED
HIGH ACCURACY
3 AVERAGING CIRCUITS
SIMPLE SERVICING
ECONOMY

The Uniformity Analyzer is designed for sustained high accuracy regardless of speed. A zero line is recorded on the graph, when no material is being checked, thus reducing drift errors and change in average yarn count. With the zero line recorded, the operator knows the true mean of the yarn sample. Guesswork is eliminated. Three averaging circuits make it easy to spot periodic faults in the yarn. Long-term variations are apparent.

The Uniformity Analyzer is sold and serviced through regular Brush instrument representatives located throughout the U. S. Spare parts and technical assistance can be obtained readily.

Take the first step now for better quality control . . . write The Brush Development Company, Dept. T-23, 3405 Perkins Avenue, Cleveland 14, Ohio. Canadian Representatives: A. C. Wickman Limited, Toronto.

This chart records non-uniformity of a 25-count cotton yarn. Chart indicates 49.9% gross deviation from nominal weight per unit length. The Uniformity Analyzer is calibrated for cotton or wool, as specified, and can be adapted for other materials.

THE **Brush** DEVELOPMENT COMPANY

BRUSH

Put it in writing . . . fast! with a Uniformity Analyzer

PIEZOELECTRIC CRYSTALS AND CERAMICS • MAGNETIC RECORDING • ELECTROACOUSTICS • ULTRASONICS • INDUSTRIAL & RESEARCH INSTRUMENTS

industry, they will manage to shoulder this accusation too and continue to improve and do a good job under whatever adverse conditions are imposed upon them. Perhaps they will even insert into the curriculum a two-hour course for sophomores emphasizing the need for their support of research when they become top management.

Another opinion has been offered on how to sell research to management: Don't over-simplify research or the entire research movement will be hurt; keep research mysterious.

Such an approach may work well in a few organizations. But mystery is a difficult product to sell, and few mill men buy it.

A more practical approach has been voiced by another research man who believes that it is up to the researcher and the scientist to get their stories across to management in terms that management can understand. This is no reflection on management, but the tacit understanding is that management does not have the time to ferret out the essentials from a lengthy and highly technical or scientific report.

The foregoing idea is basic. When work is planned or completed, give the information to management in plain, everyday American—and research will sell itself to management. It will, that is, if the researcher actually has something to sell.

When addressing other scientists or researchers, the story may be presented in highly technical language, but for a man who is concerned with a multitude of management problems the researcher must offer his report in essence, and then in mill language.

To Own Organization. The statement has been made that one of the most difficult jobs the researcher has is that of selling his own organization and his own management on the value of research, even where the mill's research department is already established. This may continue to be true because management is a close observer of the profit and loss statement and is accustomed to fitting each component of the organization into its proper place according to its value. But those who have been eminently successful in selling research to their top management have themselves made a study of management's problems, rather than waiting for management to learn of their own.

Viewing our own immediate problem in the proper perspective with reference to the entire picture is difficult. This is true whether we are engaged in the specialized operations of research, quality control, maintenance, or public relations.

But if researchers or any of us are to sell our wares, we must first have something to sell and then understand the problems of the prospect.

And in this instance top management, who foots the bill, is the prospect.

FUTURE EVENTS

Feb. 13-15—Cotton Research Clinic, sponsored by the National Cotton Council, Pinehurst, N. C.

Feb. 23—Meeting, Southeastern Section, AATCC, Alabama Power Co. auditorium and Purefoy Hotel, Talladega, Ala.

Feb. 29—Meeting, New York Section, AATCC, Hotel McAlpin, New York City.

Mar. 2-4—Southern Safety Conference and Exposition, Atlanta, Ga.

Mar. 3-7—Spring meeting and committee work, **American Society for Testing Materials,** Hotel Statler, Cleveland, Ohio.

Mar. 21—Hudson-Mohawk Section, AATCC, Jack's Restaurant, Albany, N. Y.

Mar. 22-April 6—The second **International Trade Fair,** Navy Pier, Chicago, Ill.

April 1-4—21st National Packaging Exposition, Auditorium, Atlantic City, N. J.

April 3-4—Spring meeting, **Textile Quality Control Association,** A. French Textile School, Georgia Institute of Technology, Atlanta, Ga.

April 3-5—Annual convention, **Alabama Cotton Manufacturers Association,** Hotel Buena Vista, Biloxi, Miss.

April 16-17—Spring meeting, **Fiber Society,** Clemson House, Clemson, S. C.

April 16-18—Annual convention, **Cotton Manufacturers Association of Georgia,** Boca Raton Hotel and Club, Boca Raton, Fla.

April 21-25—Knitting & Allied Crafts Exposition, Grand Central Palace, New York City.

April 22-23—Annual convention, **National Knitted Outerwear Association,** Waldorf-Astoria, New York City.

April 24—Annual meeting, **Underwear Institute,** New York City.

April 25-26—Annual meeting, **Canadian Association of Textile Colourists and Chemists,** Mount Royal Hotel, Montreal, Quebec, Canada.

May 1-3—49th annual convention, **Phi Psi Textile Fraternity,** Clemson House, Clemson, S. C.

May 12-17—National Cotton Week, sponsored by National Cotton Council.

May 15-17—Third annual convention, American Cotton Manufacturers Institute, Inc., Haddon Hall Hotel, Atlantic City, N. J.

May 15-17—Annual outing, Carolina Yarn Association, Carolina Hotel, Pinehurst, N. C.

May 22-24—Annual meeting, **American Society for Quality Control,** Syracuse N. Y.

June 2-7—Annual conference, **Textile Institute,** Assembly Hall, Edenburgh, Scotland.

June 12-14—Annual meeting, **Southern Textile Association,** Ocean Forest Hotel, Myrtle Beach, S. C.

June 23-27—Annual meeting, **American Society for Testing Materials,** Hotels Statler and New Yorker, New York City.

Sept. 8-10—Third **National Standardization Conference,** sponsored by the American Standards Association, Museum of Science and Industry, Chicago, Ill. To be held in conjunction with Centennial of Engineering.

Sept. 9-13—7th National Chemical Society Exhibit, the Coliseum, Chicago, Ill.

Sept. 18-20—Third **Canadian Textile Seminar,** Queens University, Kingston, Ontario, Canada.

Oct. 6-11—Seventeenth Southern Textile Exposition, Textile Hall, Greenville, S. C.

Nov. 6-8—31st annual convention of the **American Association of Textile Chemists and Colorists:** also the textile dyeing and finishing exposition, Hotel Statler, Boston, Mass.

Nov. 19—34th annual meeting, **American Standards Association,** Waldorf-Astoria, New York, N. Y.

DRAPER CORPORATION ANNOUNCES THE PURCHASE OF THE WALKER MANUFACTURING COMPANY AND WILL OPERATE IT AS THE WALKER DIVISION OF DRAPER CORPORATION

FOR WEAVERS THIS MEANS FASTER DELIVERY, BETTER SERVICE BY WEAVING EXPERTS.

WALKER'S *production facilities are being greatly expanded.*

HEDDLES

Capacity will be more than doubled; Walker high quality improved still further.

FRAMES

Stronger end braces; tripled production capacity.

PITCH BAND REEDS

Including heavy duty carpet reeds with ¼" and ⅜" wide flat or oval dent wire.

BRING YOUR LOOM HARNESS PROBLEMS TO WALKER

Walker's expanded service and engineering facilities are now backed by Draper's staff of weaving experts. Consultation without obligation.

WALKER

DIVISION OF DRAPER CORPORATION

ATLANTIC & RUTH STS., PHILADELPHIA 34, PA.

NEW Equipment AND MATERIALS

Less Stock Damage with New Opener Room Fire Protection System

Because fire in opened cotton races quickly across the surface and damages considerable stock before producing the heat required to open automatic sprinklers, a fire protection equipment manufacturer developed a manually operated fine-spray system which he claims prevents flame spread and practically eliminates stock damage.

Known as the Grinnell Opener Room Fire Protection System, it is designed to supplement automatic sprinkler systems.

"ProtectoSpray" heads attached to piping suspended below the ceiling are connected to a water supply through a quick-acting valve with one or more remote control stations, strategically located in the room. The location of each head and the choice of the spray patterns are engineered to insure uniform and complete coverage of the entire hazard area, the manufacturer states. Control stations are located to be within quick reach of attendants at all times during normal performance of their duties.

Operation of the system depends upon an alert attendant being present at all times when the openers are in operation. At the first sight of a flame flashing in the opener or elsewhere in the room, the attendant moves a few steps to the nearest control station, presses the lever for a few seconds and releases it. The system instantly blankets the opened cotton area in opener room with a misty spray.

Unnecessary water damage is avoided by a self-closing valve that is provided at each control station. If flame has leaped to one or more opened bales the flame is arrested at that point, it is claimed. It cannot progress to involve other open bales, the manufacturer states, because the surface fibers have been dampened and are not in a condition to burn.

Depending upon how many seconds the emergency valve was depressed, only a thin top layer of cotton need be stripped off for drying before normal operations can be resumed. If time permits, free ventilation of the room will remove or distribute the slight excess moisture, and processing of the opened bales of cotton can proceed without stripping any of the cotton which remains untouched by flame. Salvage operations are said to be reduced to a minimum.

OPENER ROOM equipped with the Grinnell Opener Room Fire Protection System. Note "ProtectoSpray" heads directly above bales.

Grinnell Co., Inc., Providence, R. I.

For additional data, request item B-114, using business reply card on page 252.

Special Open Gill Box to Print Combed Sliver

Officina Meccanica Sant' Andrea, Novara, Italy, is offering a machine with which it is possible to print wool and synthetic tops and blends to obtain highly accurate blends. This combination of gill box and top printing machine is known as a Vigoureux machine and incorporates an open gill box providing for perfect pin control and parallelization of the fibers, as well as a calendering device with grooved printing rollers to print stripes of dyes on tops.

The gill head is equipped with

WE HOPE YOU'LL ASK THESE QUESTIONS

LESS VIBRATION ? Yes, sir! Jenkins spinning cylinders are dynamically balanced to remove all traces of vibration. They run smoothly at all speeds.

LOWER COST ? Naturally! Smooth cylinder performance cuts operating costs by affording longer life, less wear throughout the frame.

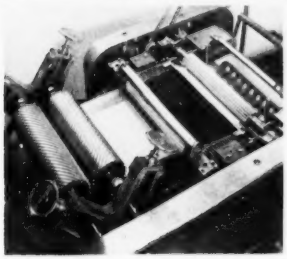
BETTER YARN ? Surely! Yarn flows freely and smoothly at all speeds, assuring the uniform quality that means *surer profits.*

GUARANTEED QUALITY ? Of course! 39 years of engineered thinking and conscientious workmanship backs up every Jenkins product you buy!

JENKINS

ENGINEERED PRODUCTS

JENKINS METAL SHOPS
GASTONIA, NORTH CAROLINA



VIGOUREUX MACHINE for gilling and printing wool and synthetic tops. At left is close-up of faller bars and printing rollers (Ernest L. Frankl Associates).

normal back and front rolls as well as gill fallers, and has the function of parallelizing and drawing out the fibers and conveying them in a perfectly even and parallel form to the printing rolls. The latter are equipped with diagonal grooves and print under pressure parallel stripes of dye onto the top. The dye is applied to the surface of the printing rolls by means of a hard rubber roller covered with a special felt stocking, which in turn is impregnated by a second rubber roller revolving in a dye beck.

The arch-shaped supporting stand is attached to the delivery end of the machine where the dyed tops are allowed to dry and from which they are conveyed over a folding device into baskets. The printed top is then put into an ager to allow the dye to set.

After backwashing, the printed top is then processed in a normal spinning preparation, and the doublings on the preparing gill boxes and drawing frames provide perfect distribution of the dye parts in the tops, the manufacturer claims.

Upon completion of the drawing the slivers have achieved an attractive uniform tint, the shade of the tint varying according to the number and the width of the printed stripes (e.g., the top is gray if the stripes were printed with black dye; hazel brown if printed with brown dye, etc.).

In other words, with this process a "Melange" is obtained; that is, tints which normally are produced in the preparing and doubling operations on intersecting gill boxes where tops of different color are blended several times according to the blend required. In the Vigoureux process the blend is obtained quickly and perfectly with savings in labor and time, according to the announcement.

Ernest L. Frankl Associates, 22 East 40th Street, New York, N. Y. (U. S. representative of Sant' Andrea).

For additional data, request item B-109, using business reply card on page 252.

Made-in-Color Acetate Fiber

"Chromspun" is Tennessee Eastman's new made-in-color acetate fiber now available in a basic color range. With it a variety of pattern and color effects never before available in fabrics are now obtainable, the manufacturer claims; also it has all-around color fastness superior to that yet achieved with any other type of fiber.

"Chromspun" colors are said to be "life-of-the-fabric" colors with respect to light, washing, atmospheric fumes, perspiration, wet and dry crocking, and commercial cleaning fluids.

A. M. Tenney Associates, Inc., sales representatives, 10 East 40th St., New York 16, N. Y.

For additional data, request item B-115, using business reply card on page 252.

Small "Gentle-Air" Dryer for Slashers Where Space is Limited

The Model B Uxbridge "Gentle-Air" dryer for slashers is, according to the manufacturer, designed for cramped quarters where the larger Model A dryer will not fit; also for mills which do not require the high production of the Model A.

The same advantages are claimed for the Model B unit as for the Model A—namely: high quality warps produced at high speeds, no explosion hazards, all parts completely accessible for servicing, low cost operation.

Bachmann Uxbridge Worsted Corp., Uxbridge, Mass.

For additional data, request item B-401, using business reply card on page 252.

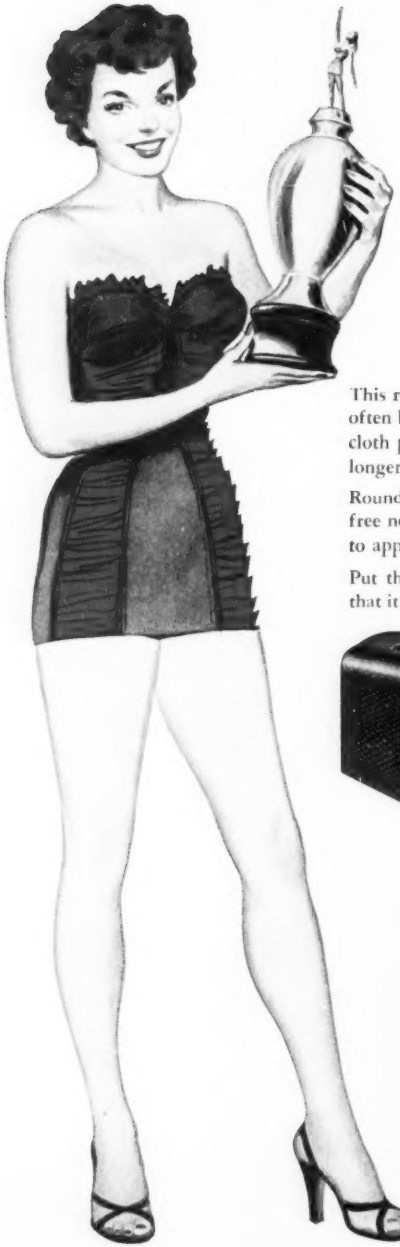
Handy Dry Type Spot Remover

With the handy "Janie Spot Eraser" now on the market, grease, oil, and food stains can be easily removed from all types of fabrics without damage, the manufacturer claims.

(Continued on page 203)

Dry spot remover (Aeroxon).

Speaking of picking beauties—



take a look at this redhead!

This red-headed Dayton Super Picker consistently outlasts other makes—often by as much as 2 to 1! That longer life means less down-time, more cloth production. And because the Super Picker runs cooler, shuttles last longer.

Rounded front edges eliminate hanging filling . . . narrow back permits free non-wear on lay-in strap . . . flared bottom makes picker stick easier to apply. May be used on high-speed and standard speed looms.

Put the Super Picker to work on your looms—*prove* in your own mill that it will outpick any ordinary picker on the market! Ask your salesman, or: Dayton Rubber Co., Textile Div., Woodside Bldg., Greenville, S. C.

The Dayton Thorobred Picker performs with top efficiency at low cost. Patented symmetrical loop construction holds picker in correct contact position. Picker stick hole is designed for correct shuttle contact, eliminates striking at an angle.

Dayton Rubber

Since 1905

TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

Index of Articles

"Please send immediately one Index TEXTILE INDUSTRIES for 195[illegible]."

NARVENSENS
Oslo, Norway

► The Index of Articles for TI is loosely inserted in the December issue each year. Extra copies may be secured by writing the editors.

Papers by Authors

" . . . read with interest the account of the American Society for Quality Control conference . . . would be very glad to receive information as to how we can obtain a copy of the paper delivered by . . . "

R. EWLES
Mohawk Mills, Ltd.
Hamilton, Ont., Canada

► Speakers at conventions and technical meetings do not always have copies of their papers available for the press; reporters frequently write their stories from notes. Those desiring the complete remarks can often secure them from the speaker.

Rayon-Wool Gabardine

". . . most interesting article in your November, 1949 issue on 'Start-up Marks on Spun Rayon-Wool Gabardine'. . . like to get reprints. . . . "

C. E. GOBEILLE
Superintendent
Dominion Burlington Mills Ltd.
Sherbrooke, P. Q., Canada

Wet Processing Section

". . . thank you very much for the three copies of 'Tips on Wet Processing' [Sept. 1951] . . . your usual cooperation is repeated here in this instance. . . . "

JAMES A. JONAS
Unique Fibers, Inc.
Empire State Bldg.
New York 1, N. Y.

Outstanding

" . . . . think the article 'Quality Control of Fibers' in your August issue is outstanding . . . like to have six reprints. . . . "

E. W. CARPENTER
Cotton Dept.
Greenwood Mills
Greenwood, S. C.

" . . . . if reprints available . . . like to have three copies article 'Quality Control of Cotton Fibers' by R. M. Ashner. . . . "

CHARLES H. REYNOLDS
Vice-President
Spindale Mills, Inc.
Spindale, N. C.

Shorts and Remnants

ACROSS THE DESK (From Far and Near)

Service to All

" . . . please forward to the writer available booklets or any information with respect to testing machines for hosiery . . . "—**Fred J. Howard,** The Monarch Knitting Company, Ltd., Hosiery Division, St. Catharines, Ont., Canada.

" . . . appreciate your sending us a reprint of 'Predicting Cotton Yarn Strength' by John Duerst which appeared in the September 1951 edition . . . "—**H. E. Kuehn,** Asst. Chief Development Eng., Whitin Machine Works, Whitinsville, Mass.

" . . . am looking for articles on production control . . . . specific applications in other plants that might in some respect be applied to our mill . . . appreciate any help . . . . "—**R. S. Jackson,** Canadian Cottons, Ltd., Cornwall, Ont., Canada.

" . . . interested in the article appearing in the September issue of TI page 130 'Practical Terry Weaving and Designing' . . . "—**L. E. Parsons,** Dept. Textile Eng., Lubbock, Tex.

" . . . illustrations on page 75 of August issue, showing a special type of Scotch tape which is available in colors for marking lanes and areas . . . advise us the supplier's name . . ."—**J. R. Wehner,** Dominion Woollens & Worsteds, Ltd., Hespeler, Ont., Canada.

" . . . wish to establish some records regarding loom supplies . . . our recollection that TEXTILE INDUSTRIES published the experience of some mills relative to this item . . . matter was discussed at a meeting of mill executives and included particulars such as the life of shuttles, pickers, picker sticks, etc. . . . "—**Warren A. Johns,** Hamilton Cotton Co., Ltd., Hamilton, Ont., Canada.

" . . . series of articles appeared in your instructive journal on winding principles with particular reference to the Universal Nos. 44 and 50 . . . send 3 copies . . . "—**Principal,** Technological Institute, Bangalore, India.

" . . . having read Mr. Posey's article 'Weaving Defects Can Be Reduced' in October 1951 issue . . . should like very much to have a few interested associates in textile plants read . . . please forward several reprints . . . "—**D. Bozzone,** 125 W. 76th St., New York 23.

" . . . three copies, if still available, from November 1950 issue entitled 'Uster Tester Discussed at Gastonia Quality Control Meet' . . ."—**M. Campbell,** Industrial Department, W. R. Grace & Co., Hanover Square, New York.

" . . . please send to the writer's attention six reprints of 'Tar Spots Are With Us' . . . "—**Ray A. Norman,** Asst. Treas., Steel Heddle Mfg. Co., Greenville, S. C.

And a Back Pat

" . . . you are to be congratulated upon the splendid way in which you handled the recent AATCC Convention in your December issue. . . "—**George H. Schuler,** Director, Technical Laboratory, E. I. DU PONT DE NEMOURS & Co., Inc., Wilmington, Del.

THE SWEEPER AND HIS DUSTPAN

If readers of "Weave Room Cleaning" (Jan. p 104) were stopped by this unusual cartoon of a sweeper using a dustpan, they were not alone. It stopped the editors too!

When questioned, our artist reported that the mill was being readied for the annual board of directors inspection trip. Dirt on the floor would have kept the local management in town, instead of at some balmy seaside convention site.

Metallurgically Sound

Textile Spring-Beard Needles are sound — right up to the surface. We start with a special steel formula, then with superior tempering and scientific controls — automatic and electronic — produce exactly the right combination of strength and flexibility for the job a needle must do.

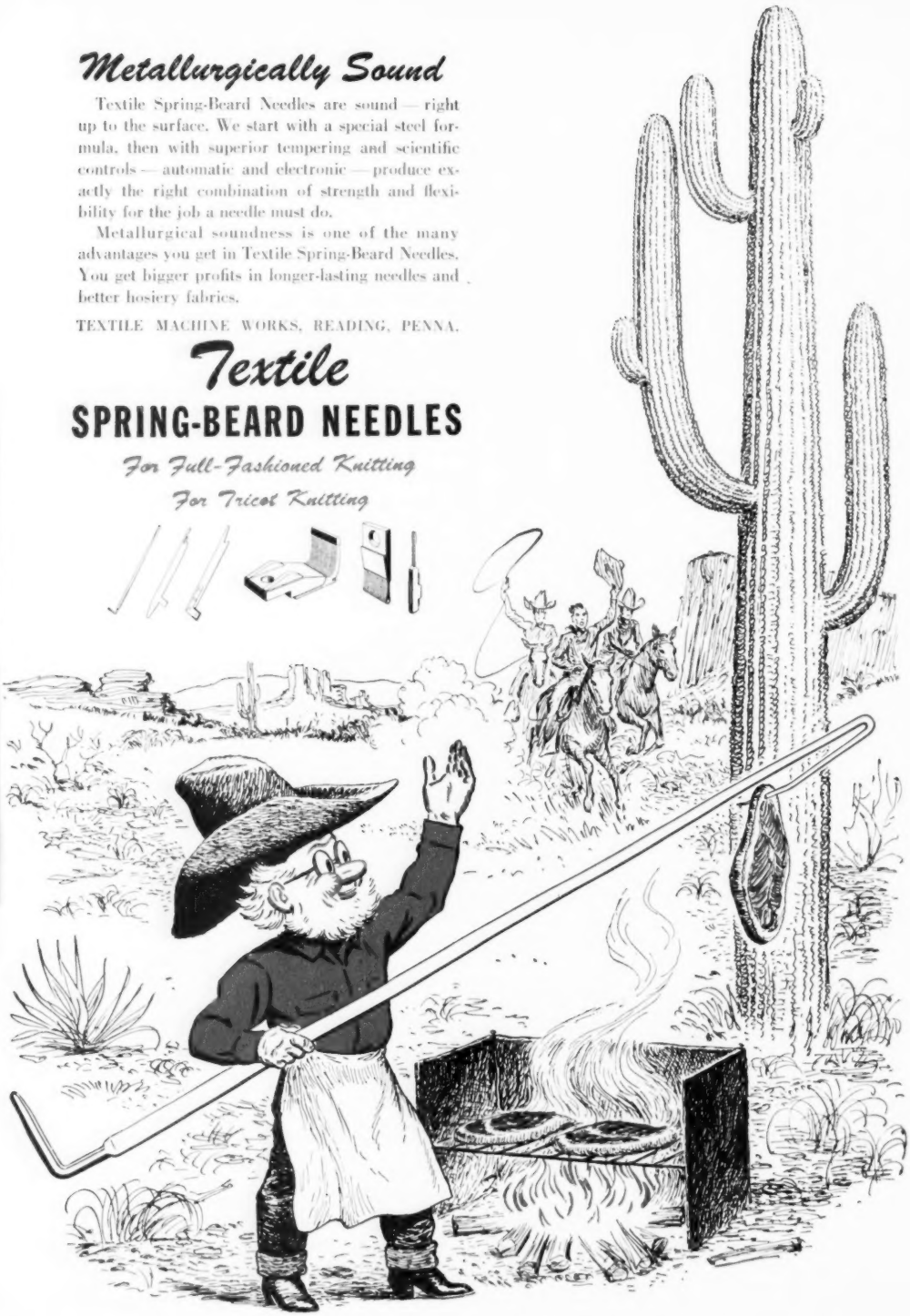
Metallurgical soundness is one of the many advantages you get in Textile Spring-Beard Needles. You get bigger profits in longer-lasting needles and better hosiery fabrics.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile
SPRING-BEARD NEEDLES

For Full-Fashioned Knitting

For Tricot Knitting



For the Fourth Consecutive Year TI Presents

Modern Production Methods

a compilation of case history reports

telling the methods by which mills save labor, reduce waste, simplify jobs, improve quality, and increase production.

THE APPEARANCE for the fourth consecutive February of the Modern Production Methods issue, in which concise case histories of equipment performance and cost cutting schemes are presented, is by your (the reader's) choice. In a poll made by mail and by personal visits, readers suggested that this type of issue be continued.

So far as possible in the case histories, the equipment supplier's name is given; and when permitted the name of the mill is included in the story.

Something new and convenient has been added this year: The chart beginning on page 123 recaps in a brief manner the type of equipment, application, and mill experience results for equipment performance reports made in this magazine during the entire year of 1951. If this listing is helpful to you in the operation of your job or for reference purposes, please let us know.

When a reader desires additional information, the request may be made to the editors or to the supplier whose equipment is reported on in the article or listing.

CASE HISTORY REPORTS

Case 1

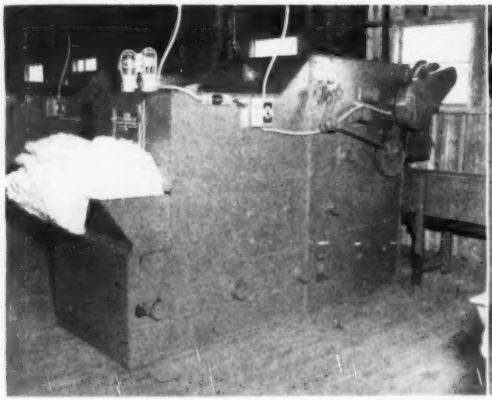
New Opener Line Improves Yarn Quality and Strength

BETTER QUALITY, higher strength yarn has been the result of the installation of a modern opening and cleaning line at Alma Mills, Gaffney, S. C. This mill, with 27,732 spindles and about 547 looms, weaves print cloths and sheetings, and the superintendent, C. G. White, is very much interested in producing a clean, strong yarn for his looms.

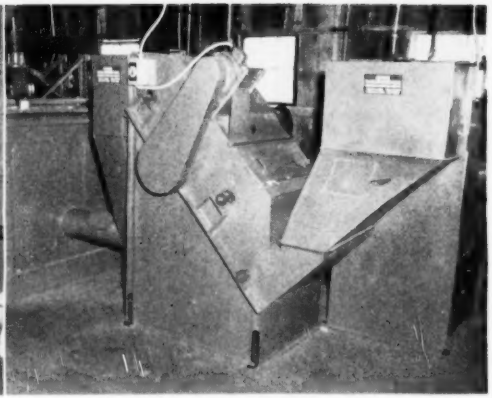
The mill, which has been gradually adding modern machinery, was handicapped by an inadequate opening room in which cotton went from bale to bale breaker to verticle opener, and then straight to the pickers. This arrangement permitted very little blending from bale to bale and did not include enough cleaning and opening equipment to deliver the cotton to the picker in the proper condition for production of good laps.

Earlier this year, this condition was considerably improved by the purchase of new opening equipment which not only does a great deal more opening and cleaning but permits a thorough blending of the cotton from twenty-four bales at a time.

The new line is made up of six



FEEDER HOPPER in place in opening line in Alma Mills. Six of these are used to feed cotton to a conveyor line leading to Blend-Masters.



BLEND-MASTERS at Alma Mills receive cotton from six feeder hoppers and blend it and clean it, passing it on to a vertical cleaner.

F-15 feed hoppers and two Blend-Master cleaners, all of this equipment being manufactured by the Gastonia Textile Machinery Co., Inc., of Gastonia, N. C. The six feed hoppers are installed in a line, ten feet apart, each dumping onto a conveyor leading to the Blend-Master cleaners. Four bales of cotton are placed in front of each hopper so that the mixture reaching the cleaners is from twenty-four bales.

The feed hoppers are of the spiked apron type, with a revolving doffer knocking the tufts of cotton from the apron and then over a series of grid bars. A new feature of the design is an automatic feed door which will open to permit the entrance of cotton only when the bottom apron can conveniently handle it. The operator may fill the feed bin as full as possible, and the feed to the apron will remain constant. These feed hoppers are, of course, adjustable as to output, and the six at Alma are fixed to feed a total of 1500 lb per hour to the cleaners.

The two Blend-Master cleaners, installed in series, are designed to both blend and clean the cotton delivered from the feed hoppers. Each cleaner is built with four revolving spiked drums, the spikes being rectangular bars about six inches long. Instead of being spaced straight across the drum, these spikes are spaced on a spiral, the spiral running from left to right on one drum and then in the reverse direction on the drum above. This arrangement knocks the cotton from one side of the cleaner to the other to blend it as it is cleaned over grid bars.

Cotton becomes easier to clean as it opens, so the second Blend-Master, handling fairly well opened cotton, is able to remove a large part of the leaf and trash.

The vertical opener was left in the line but its speed was reduced from 475 to 350 rpm. It is now doing an excellent job, much better than it did with cotton from the bale breaker. The results obtained from a vertical opener depend to a great extent upon the condition of the cotton fed to it. The better the cotton is opened, the better the job done by the vertical opener. With only a bale breaker ahead of it, the opener did not have much of a chance. In the new line, the cotton delivered to it is fluffy and well blended, and ready for this type of cleaning.

From the vertical opener cotton is blown to the picker room as before. But the cotton received in the picker room is quite different. It

Case 2

Throwing Plant Uses Power Tool

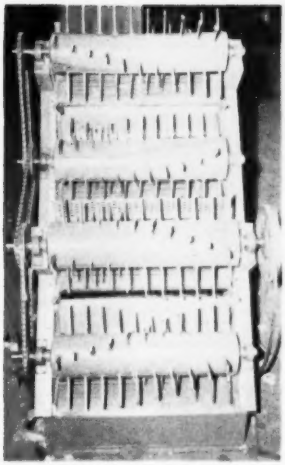
THE CLEARVIEW Textile Corp. of Scranton, Pa., is using an electric tool in the maintenance of its processing equipment. Considerable time is saved.

The company processes many types of synthetic yarns, operating continuously 24 hours a day, 7 days a week at a terrific rate of speed.

High speed operation is hard on machinery, but in this instance there is no machinery breakdown under constant high-speed routine because of the plant's excellent preventive maintenance program.

The steps in the program are: (1) *Careful inspection.* Operators who remove full spools and replace them with empties are constantly observing the spooling or twisting machines. If anything goes wrong, it is noticed right away.

(2) *Prompt equipment maintenance* is provided by a new electric Impactool developed by Ingersoll-Rand, which cuts down-



BLEND-MASTER with cover removed. This shows how spikes on drums spiral right to left on one drum and then left to right on drum above.

is cleaner and many times better blended.

Results of better cleaning and blending are measured at Alma in improved yarn quality and yarn strength as well as in reduced ends down. Since the installation of the new opening line, yarn quality has been raised. Yarn strength has been increased, and ends down in spinning have been reduced.

carrying 100 spindles and 100 fingers per deck. "Note," he said, "that each spindle is fastened to the frame with a $^3/_8$" square nut, and each finger is fastened down with two screws. That makes 200 nuts and 400 screws to take out and put back again when the spindle and finger assemblies alone are repaired. There are also bolts and nuts of other sizes on other sub-assemblies of the machine, and the electric tool is used for all of them. It's especially good when we have long rows of nuts or bolts of one size which we can run down. Usually we overhaul 8 or 10 machines each month—so we're at it all the time.

"Since we substituted power tools for hand work and use the electric Impactool for machinery repair, we save about ⅓ the time on the total repair job as compared with the time required for hand wrenches and screw drivers. And on individual operations we save even more. There are as many as 160 sub-assemblies on a face-drive twister. In assembling the sub-assemblies to the machine, we save about another 25% of the time. We have about six or seven Impactools around the place now, for use in repairing our twisters and high speed spoolers."

Mr. Storm attributes the significant reduction in downtime to the versatility and speed of the tool. A nut or screw which takes three or four minutes to run down by hand can be run down in five seconds with the electric tool. And, since the tool is reversible, it can be used to remove them just as fast. Even rusted, corroded, or frozen nuts respond to the rotary blows of the tool in a few seconds. This is because it has certain advantages not usually associated with conventional electric tools. It will ream, drill, tap, run and remove nuts, screws, and studs, and extract broken cap screws and studs.

This tool also aids the Clearview Textile Corp. in the third step of its preventive maintenance program—that of *"modernization"* of machinery. Modernization is always done if the improvement will speed up production. For instance, new bobbins, new fingers, or other new attachments may be put on a machine if they are superior to the type the machine carries—even though the machine itself is no more than a year or two old. In work of this type the electric tool is used as a drill, a nut-runner, and a screw-driver.

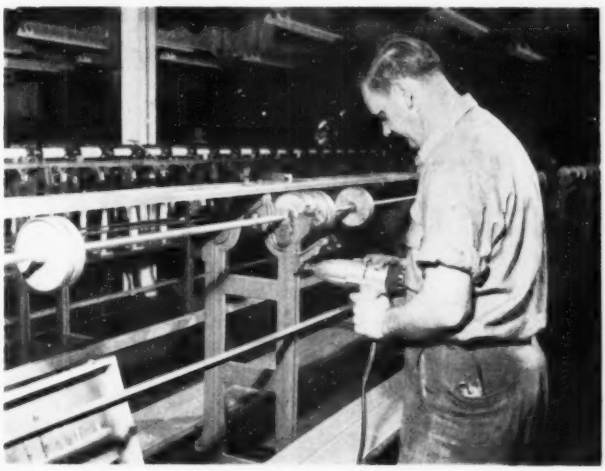
The electric tool is light in weight—only 6½ lb, and is fast and non-tiring to the operator. All

for Maintenance

time as much as 50%. The tool is used for spot repairs and it is also used once or twice a week for the big job of general disassembly. On this work, it paid for itself on the first job.

F. R. Storm, vice-president of the company, says that the electric tool has made it possible to carry out the machinery repair program while still maintaining production at a high level. As an example of the way the tool is used, he pointed out an Acme double deck twister,

TIGHTENING tension rod brackets to the frame of a high speed spooler. On this job it takes about 5 seconds to run the $^3/_8$" nut down with the electric Impactool, compared to about three minutes with a hand wrench.



the operator needs to do is plug the tool into any 110-volt a-c or d-c socket and pull the trigger. When resistance to turning is met, the tool does the work—not the operator.

Fundamental to the program is the substitution of power tools for hand work.

Case 3

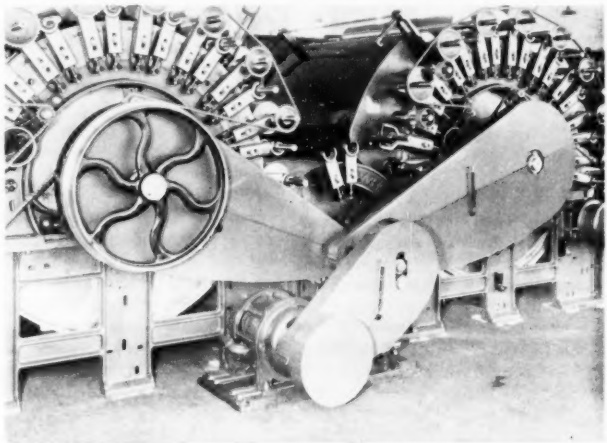
Reduced Costs in Wool Manufacture Credited to New Clutches

APPROXIMATELY one year ago Carleton Woolen Mills, Inc. replaced all of their carding and spinning machines with Whitin 72-in. cards and Whitin 144-spindle frames. After several conferences and investigations by management personnel in the mill, the new machines were equipped with Mercury clutches.

Upon careful examination of performance data on the new machines it was determined that a better power factor was obtained, and the improvement was attributed to these clutches. The reduced peak of electric loads permitted a reduction in electric power rates. The smooth starting of the 72-in. cards was gratifying. The smooth transmission of power to the drive reduced vibration considerably, and close adjustments and card settings remain unchanged for an extended period. Similar improvements were noted in operating the spinning frames.

Improved efficiency and peak production from the machines was assisted to a great extent by the clutches, according to management at the mill. One of the features specially noted is the absence of mechanical troubles, a condition which is partially attributed to smooth operation of the clutch.

SMOOTH OPERATION, accompanied by reduced power costs and less maintenance, is attributed to Mercury clutch installations.



Case 4

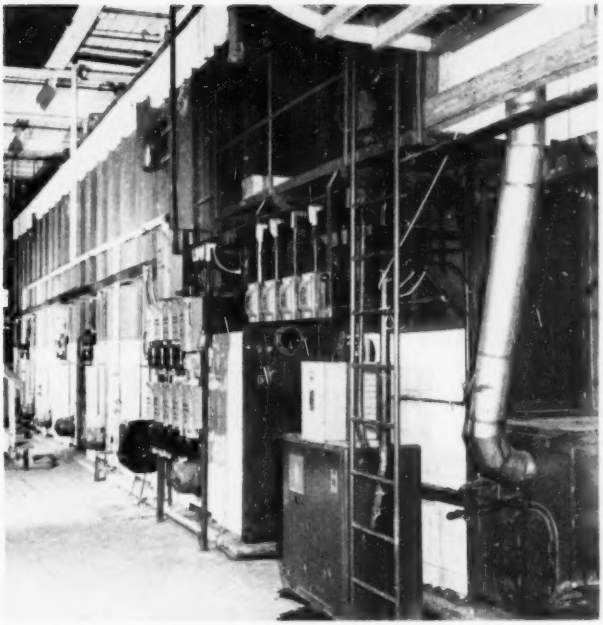
Loop Ager Triples Production of Printed Fabrics

GREATER production, labor savings, and reduced steam consumption are some of the results achieved on printed fabrics when using a Proctor loop ager, according to information from Joseph Bancroft and Sons Company, Eddystone, Pa.

Vat colors on printed fabrics of various types, weights, and constructions are now being aged in a steam atmosphere at a minimum rate of 180 linear yards per minute, when running two strands of 50-inch wide cloth at a speed of 90 linear yards per minute per strand. The fabrics so processed are of the high quality and uniformity to meet the standards of the mill.

Not only has the labor required to operate the aging room been greatly reduced, but the problems formerly experienced, such as mark-off and broken selvages, are non-existent. The following list includes some of the savings and benefits resulting from the installation of the loop ager:

(a) Production per hour is approximately three times the total



PROBLEMS formerly experienced, such as mark-off and broken selvages, are non-existent since this loop ager was put into operation at Joseph Bancroft and Sons Company.

production of the previous equipment.

(b) Bancroft expects the savings in labor alone to amortize the investment in slightly more than five years.

(c) Floor space per yard of cloth processed is ½ the space previously required.

(d) Steam consumption has been reduced.

(e) Less mechanical maintenance is required, and accessibility is good. Cleaning the machine requires less time.

(f) No leakage of steam occurs in that fewer shafts pass through the enclosure, and the length of the mouthpiece has been reduced to ½ that previously required per yard of material processed.

(g) The new ager can be used for a larger variety of fabrics.

(h) Pressure and tension on the cloth are not present during aging; therefore a corresponding elimination of mark-off and broken selvages is evident.

(i) Uniformity is excellent for the full length and width of the piece.

The entire operation of the ager is continuous. Material enters the ager through a vented mouthpiece equipped with steam chests and is formed into loops on a special conveyor by means of draw rolls and a unique looping mechanism. The conveyor is of the intermittent revolving girt type, which advances the cloth linearly as it is conveyed through the ager.

Aging takes place in an air-free steam atmosphere only slightly above atmospheric pressure. At the discharge end, the cloth is withdrawn from the machine through a mouthpiece at the bottom and is returned overhead to the feed end where it is folded into trucks, thereby centralizing the entire operation of the ager at one location.

The ager is constructed of structural steel and welded steel plates which comprise an air-tight unit. Stainless steel is used for rolls and other non-structural parts.

According to an official of Joseph Bancroft and Sons: "The installation of the loop ager has removed our former bottleneck in ager capacity. At the same time it points toward more economical operation and many additional benefits such as increased flexibility of operation and improved quality."

Case 5

Eye-Aid Proves Valuable in Full-Fashioned Knitting

IN FULL-FASHIONED hosiery manufacturing operations, a device called the Magni-Focuser, an eye-aid, is being used to advantage by mechanics and knitters in making adjustments to needles, dividers, sinkers, and other precision parts of the knitting machines and seamers.

In one instance the master mechanic found the instrument invaluable in making all adjustments to the various parts of fine gauge knitting machines in that the Magni-Focuser serves as an eye-aid by magnifying machine parts, threads, etc.

The device fits over regular eye glasses, is of featherweight construction, and leaves both hands free to perform the operation or adjustment. Matched prismatic lenses relieve eye strain on fine work by magnifying to sharp focus, providing true depth perception. Normal vision may be resumed by slightly raising the head.

The instrument is particularly applicable and helpful on 15 denier, 60 gauge work. Menders find

Photos made at Durham (N.C.) Hosiery Mills

NARROWING TROUBLES and defects are observed through Magni-Focuser. Occasionally improper alignment of narrowing points may be discovered while the knitting machine is in operation. Right, lining up and spacing 60-gauge needles in a knitting machine. When a needle breaks and is replaced, the new needle and the needles in the same section are checked and pliered if necessary.

STRAIGHTENING a 60-gauge needle prior to placing it in the needle bar.

the eye-aid useful in observing defects and in performing mending operations. Seamers, fixers, inspectors, and menders all have found the device reduces eye-strain and is helpful in their work. Quality standards and production goals are less difficult to maintain with the help of the Magni-Focuser binocular eye loupe. The manufacturer is Edroy Products Company.

Case 6

Model E Loom Drive Saves Time, Less Maintenance Required

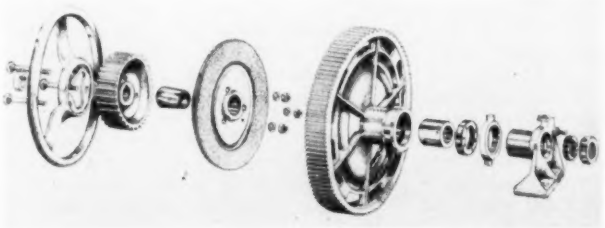
EXPERIENCE in several southern mills has been satisfactory on the Draper No. 11 motor drive for E Model looms. Considerable time is saved by loom fixers, and less maintenance is required.

It is unnecessary to remove the crank shaft from the loom when working on the drive in that all parts are a loose fit, no forcing of parts being required. The parts cannot come loose when properly assembled, and wear on the crank shaft—due to loosening of drive parts—is eliminated. The complete assembly is permanently locked on the shaft by tightening three bolts.

Loom fixers can perform repair work at the loom, and when added to the cost of parts sometimes damaged when using force, the labor saved will in a short period pay for the drive. The drives can be assembled and disassembled many times for replacement of worn parts without damage and in a fraction of the time required for constructions which require forcing.

The B Style outside bearing

COMPONENTS of Draper No. 11 drive are shown in this exploded view of the assembly.



construction is used in conjunction with the No. 11 drive to overcome known weaknesses in older constructions and to increase efficiency. The design is heavier, and braces which extend from the outside bearing support to the loom-side foot are designed to better support the outside bearing and a one horsepower motor.

Loom speeds when using the No. 11 drive and B Style outside bearing construction are no less than 1% of the calculated loom speed; whereas previous drives show a difference of 4%. The difference represents additional picks and a higher efficiency at less cost for mills equipped with the No. 11 drive and B Style outside bearing.

Case 7

Better Warps with Homogenized Size

Economies effected in materials, steam, labor, and time

TWO Scott & Williams Hydropulse units have been recently put into operation at Opelika (Ala.) Manufacturing Corporation. The equipment is used for the continuous preparation of homogenized warp size. Each unit has a capacity of 150 gallons per hour and utilizes a high pressure homogenizer connected in tandem with a heat exchanger to eliminate batch kettle heating and cooking in making size.

The Hydropulse units are each operated from a single push-button switch, so that fresh size is continuously prepared as required at the slasher size boxes. When the equipment is operated intermittently, no flushing of the unit is necessary, and there is no waste of steam—the steam supply being cut off when the operating switch is in the "off" position.

The mill reports savings in materials, steam, labor, and time, which make it possible to return the investment in less than a year. Size viscosity is more constant, and warps are more uniform. The variation in added size content has been reduced from plus or minus 1.3% to less than 0.5% as based on the mill laboratory's yarn analyses over a six months' test period.

The existing cooking kettles are employed as cold starch slurry mixing tanks, and the homogenizer delivery is to the existing storage tanks, the volume of stored size being held to a minimum. At the start of a shift, only twenty minutes are required to fill the slasher size boxes, and from then on size production is regulated to that of consumption at slashers.

Steam consumption for the preparation of size has been cut from 2.3 lb to 1.0 lb per finished gallon. There is no varying dilution from live steam condensate, and the exhaust steam from the steam-jacketed heat exchanger is trapped and returned to the mill boilers.

When pearl (thick boiling) corn starch is being used the homogenizer pressure is set at 1500 psi; for handling thin boiling corn starch the homogenizer pressure is reduced to 500 psi. When pearl corn starch is used, the heat exchanger temperature is maintained at 185 F. plus or minus 2 F, and the homogenized size is delivered to storage at 190 F, plus or minus 2 F; the increase in temperature is due to the conversion of energy into heat at the homogenizing valve.

The bulb and temperature recorder formerly used for kettle cooking have been placed in the line between the homogenizer and storage. Size box temperatures are maintained at the usual 206-208 F.

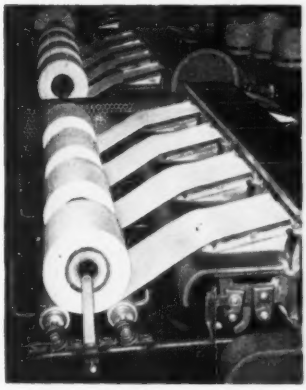
Case 8

Bearings Converted to Anti-Friction Type Promote Cleanliness

A LEADING textile mill of North Carolina converted a number of processing machines to use ball bearings. Using Fafnir grease-lubricated ball bearing units with Mechani-Seals, grease was positively retained, contaminants excluded.

Standard bearings were specified, and the engineers avoided designing and building special housings and lubricating systems. The Fafnir wide inner ring ball bearing with self-locking collar incorporated in all the units elimina'ed the necessity of shaft shouldering, lock-nuts, washers, sleeves, and adapters. Installation was fast, simple, and inexpensive.

In operation the ball bearing



BALL BEARING mounted rolls support laps on these drawing frames which were previously plain-bearing equipped.

units have been extremely clean. They are space-savers, have made roll starting easier, and roll operation smoother and more even. They have needed lubrication only about once a year.

The mill was formerly troubled with excessive oil drip from bearings onto the floor and into the stock in process. Oily accumulations of fly and dirt also caused scored shafts, worn bearings, and high power consumption.

Case 9

Control Charts an Aid to Quality

ONE TOOL, which cannot be purchased outright but which is rapidly finding its way into many textile mills, is the statistical control chart. One company using this relatively new tool is the Wamsutta Mills of New Bedford, Massachusetts.

These charts have helped to improve overall quality by showing when any process has gone out of control and requires adjustment. Limits for the particular process are determined on the basis of past performance of the process in conjunction with statistical tables.

At Wamsutta these process control charts are used in the spinning rooms for the strength and size of each yarn count and in the card rooms for the size of each hank roving and the size of drawing sliver and ribbon laps from each frame. For instance, on the latter two processes, each delivery from each machine is sized twice each shift in the card room.

The results are plotted directly onto the respective control charts. As long as the points fall within the predetermined limits, no gear changes are made. But as soon as a single frame or machine indicates "out of control" (as verified by an immediate resize), the gear on the frame is changed. Thus each shift is changing on the basis of the same procedure—the control being evenly distributed throughout all three shifts.

One check-size is also made in the laboratory from each frame every other day. All gear changes, with the number of teeth in the draft gears, are noted directly on the charts so the present condition of any machine can be noted by observing its chart.

Since these processing control charts have been installed at Wamsutta, the number of "unnecessary" gear changes has been considerably reduced, and yet the within-process variation on the subsequent processes has been also reduced.

Perley Shaw, card room overseer at Wamsutta, says he has found these charts a great aid to processing and quality and he would not want to be without them.

A CONTROL CHART depicting weights is maintained for each drawing frame at Wamsutta. Gear changes are also recorded on the graph. Here Edward Rudnick, director of research, discusses performance of No. 7 drawing frame with Perley Shaw, overseer (right).

Case 10

Improved Water

ABOUT a year ago, the No. 1 mill of Roanoke Mills Company found its dyehouse falling behind the production of the mill. Considerable overtime operations on week ends were required to keep production balanced.

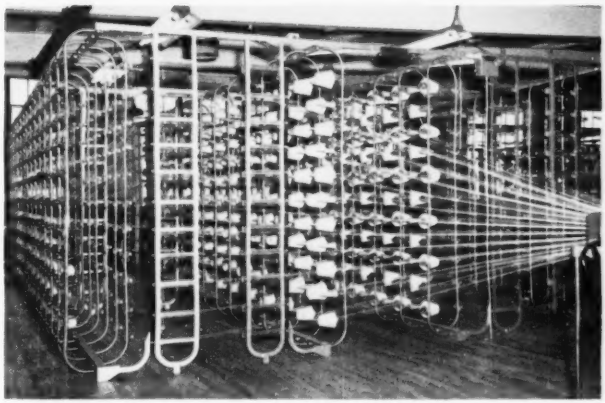
The unsatisfactory conditions were due to the low water pressure at the dyehouse, caused by a demand for more water than the piping system would supply. Pressure, however, at the meter supplying the mill and at other points within the mill remained high at all times.

A new 6-in. water supply line was installed in the dye department to double the supply of water. Formerly the water supply was carried by a 4-in. line. Flow of water from the water softeners to the dye machines was split, thereby materially reducing friction losses in the pipes. By leaving the original system in service, a number of emergency inter-connections are now available (see broken line on diagram). To

Case 11

Tandem Creel Arrangement Reduces Warping Costs

THE McBride SRM magazine creel shown assembled as two tandem units with yarn coming down inside (silk and rayon system), introduces another way that the versatile unit may be assembled. Designed and manufactured in 1951, this unit has seen its first production use in recent months. Used in the preparation of section beams for narrow fabric weaving, the creel in a period of a few weeks reduced warp preparatory costs by nearly two-thirds.



TWO MAGAZINE CREELS assembled in tandem for preparation of beams for narrow fabric looms.

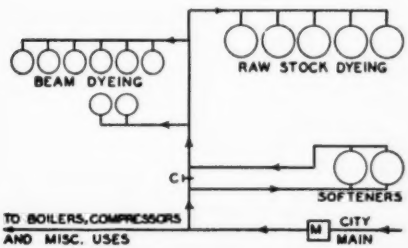
Supply for Roanoke Dyehouse Saves $25,000 Annually

minimize pressure fluctuations at the boiler room and other departments, a new 4-in. meter and bypass line were installed to supply water to the 6-in. main at a point beyond the connection of the dyehouse line. A shut-off valve was installed between these two connections.

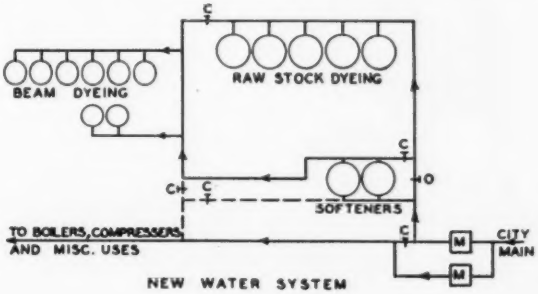
As a result of installing the new system, water for the beam dyeing machines travels through an average of 450 ft of pipe instead of 645 ft as in the old system. Water for the raw stock machines travels an average of 370 ft instead of 685 ft as in the old system. In all instances water is supplied through larger lines or the volume of flow in existing lines is reduced by splitting the system at the water softeners. The total quantity of water consumed is not materially increased in that the volume required per dyeing cycle remains the same.

Changes in the water system represent an investment of $3,000 which permits an annual saving of $25,000, or a return of 800 per cent on the investment. No additional new dye equipment was necessary. The saving was made

OLD WATER SUPPLY SYSTEM to the dye house is shown directly below. Note that all water was carried by a 4-in. line. Revised layout at right shows how a new 6-in. line was installed to the dye department to double the supply of water. Point of connection to the supply main was moved closer to the meter to reduce the length of pipe. (C) indicates closed valve; (O) open valve; (M) meter.



ORIGINAL WATER SYSTEM



NEW WATER SYSTEM

possible by increased production, elimination of overtime, and better control of water during the dyeing cycles. Two raw stock machines can now be washed simultaneously and with improved results. Delay in filling the beam dye kiers with water has been reduced from twenty minutes to five minutes per beam.

Case 12

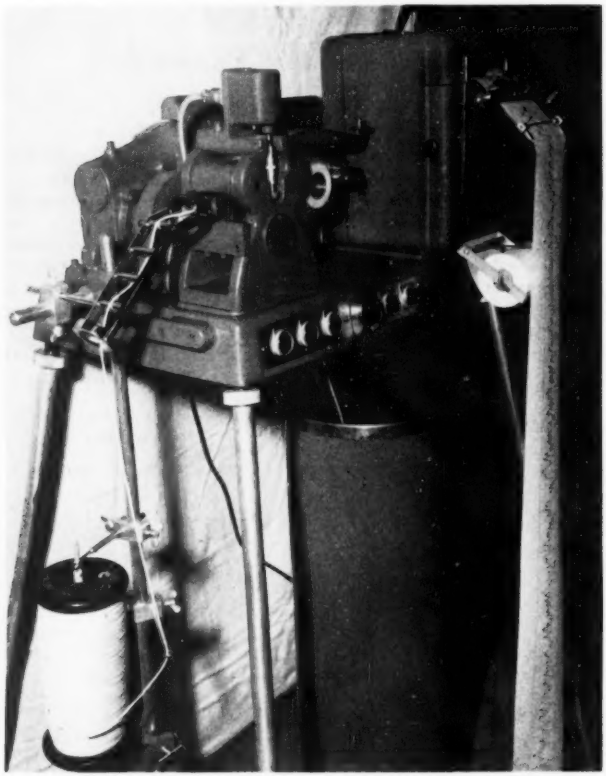
Evenness Tester Aids Quality Control Program in Synthetics Plant

SINCE THE Pacific Evenness Tester was incorporated into the quality control program at Thor Mills Ltd. at Granby, Quebec, Canada, more than a year ago, yarn quality has improved and manufacturing operations are more efficient. Consequently the mill has more satisfied customers, and production costs have been lowered.

According to the mill management, the tester fulfills an industry requirement for an instrument that yields accurate values of unevenness of yarns, slivers, and rovings, independent of their oil and moisture content, and also independent of the relative humidity of the atmosphere. Furthermore, it is capable of yielding the actual count or weight of the material being tested.

When the apparatus was first received from Anderson Machine Shop Inc., builders of the Pacific tester, numerous samples of yarn, sliver, and roving were tested for unevenness, and standards were developed from the average of the values thus obtained. Then, at frequent intervals, samples from pro-

YARN QUALITY IMPROVED when this Pacific evenness tester was incorporated into the quality control program at Thor Mills.



Case 13

American Thread Conserve Labor,

ECONOMIES from (1) faster flow of material, (2) savings in manpower and man-hours, and (3) increased utilization of existing storage area, through the use of a powered industrial truck of the high-tiering fork type, resulted in decision by management of American Thread Company to extend this method of handling and storaging materials to others of its chain of mills in New England and the South. Today a small but intensively used fleet of powered trucks, both of the rider-and hand-lead type, operate in seven of its mills, and additional installations are contemplated.

The pilot installation was made in the company's Willimantic, Conn., mill, where a 2,000-lb capacity high-tiering fork truck was put into operation in the active cotton warehouse. The truck was used in handling and storing incoming shipments of bales of raw cotton and also bales of waste. One of the immediate benefits was in the unloading and warehousing of box-carloads of cotton. Eighteen bales were being warehoused on

duction were tested. Any wide deviation from the established standards meant a lack of quality control, and corrective action was initiated.

Following the establishment of a routine testing program this mill then proceeded to determine the proper settings for each of the processing machines. Machine settings were varied and unevenness tests made on short lengths of the yarn, sliver or roving produced after the change had been made.

Upon completion of numerous tests of this sort, it was a simple matter to determine the proper machine setting—the setting which produced the best yarn or sliver.

Case 14

Mechanical Cleaner and Greaser for New Era Spindles

THREE YEARS AGO, Spartan Mills, Spartanburg, S. C., installed New Era spindles on a large number of their spinning frames. These ball bearing spindles do not require much cleaning or greasing, but the manufacturer suggests that this be done every three years. As the time approached for this job, it looked as though it would be a major maintenance item to take each spindle apart, clean it by hand, and then add just the right amount of grease before reassembling.

It has turned out, however, to be a rather simple operation, all the spindles from a frame being cleaned, greased, reassembled, and checked in one shift, using one operator and a helper. This simplification of the job is possible because of the use of a mechanical set-up furnished by Saco-Lowell Shops.

The maintenance equipment consists of five separate tools: a spindle separator, an air driven cleaner, a dryer, an automatic greaser, and a special vise for assembly. The operator first places the spindle in the separator, which is a clamp combined with a hinged lever to pry the casing from the spindle. The inside assembly of shaft and bearings is then placed in the cleaner.

This is an air-driven centrifugal cleaner in which the shaft and bearings are spun rapidly and washed with a thin hot oil pumped from a small reservoir beneath the work bench. After a few seconds of washing in the oil, the shaft is removed and placed in a similar cylinder where it is again spun, but this time it is dried with compressed air rather than washed with oil. When the shaft and bearings are removed, they are absolutely clean and dry.

The dirty oil which washed off the grease in the washer returns to the reservoir through a filter which removes all the old and dirty grease that has been washed off the spindle shaft and from around the bearings.

The clean bearings are regreased by fitting the spindle assembly into a grease rack, where the pump of a lever adds a measured amount of grease to the bearings. The shaft and cover are then placed in a special vise for reassembly. The operator tests each spindle and

Co's. Fork Trucks Storage Space

HIGH-TIERING FORK TRUCK places a 700-lb bale of Egyptian cotton in one of the high-ceiling warehouses of the American Thread Company's Willimantic, Conn., plant.

the same floor area formerly occupied by six bales. Less manual effort in the operation was another immediate benefit, both to the company and to operators, and the time for the complete cycle of unload-move-and-warehouse was more than cut in half.

Two men, utilizing the fork truck, were able to completely unload and warehouse two carloads of cotton bales in half the time required by a five-man crew to unload and warehouse one carload, employing manual methods.

Also, by utilizing all vertical storage area in the company's three high-ceiling active cotton warehouses, through the ability of the fork truck to raise a load to a height of 119 inches and deposit it in a pre-determined position, operators were enabled to store 324 bales of cotton in a "long" bay that previously had held only 108 bales. 144 bales were put in a "short" bay that used to accommodate only 48 bales.

In discussing the pilot installation at Willimantic, Thomas L. Griffith, the material handling engineer, said: "Our findings here at Willimantic convinced management that powered industrial trucks, in various applications, would go far to increase efficiency of operation, lower man-hours assigned to material handling, and effect economies in many other ways. We were unable to work out an exact formula for all mills. Each presented its own problem, but basically the powered industrial truck could be applied in many ways at each mill, especially when studies were made to coordinate and mechanize the handling of material."

racks it for return to the spinning room.

The whole operation takes but a few seconds and greatly simplifies what had promised to be a difficult maintenance job.

In cleaning and regreasing, only 1% of the spindles was found defective after three years' service.

Case 15

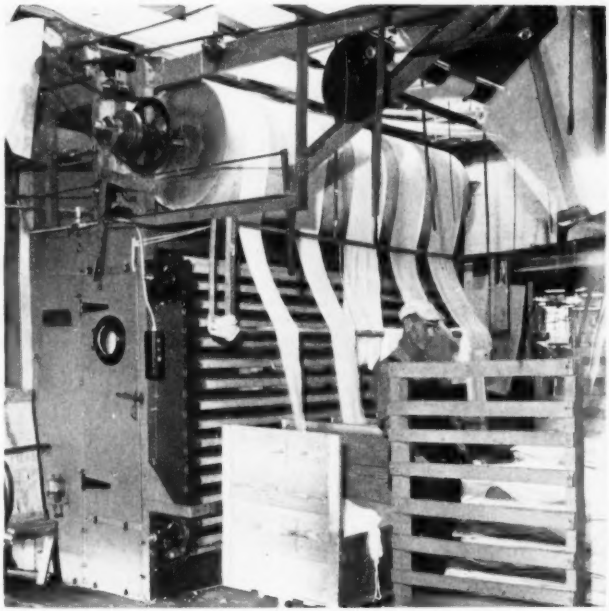
40% More Drying Capacity for Knit Underwear Plant

A NEW dryer was installed to increase the capacity in one southern knitted underwear and outerwear plant. The new machine permitted a 40 per cent increase in drying over the old constant-speed steam heated oven.

Speed on the new oven is variable, and controlled heat provides more versatility and increased capacity, although the new oven is the same size as the old one. As much as 85,000 lb of knit goods have been dried in 110 hours with satisfactory results in the Proctor & Schwartz dryer.

The equipment has not been used to full capacity in this plant.

Automatic heat controls are provided on the new equipment; whereas the only way to change the heat on the old oven was by manual regulation of a steam valve by guesswork.



SPEED IS VARIABLE on this new oven, and controlled heat provides more versatility and increased capacity.

Case 16

Improvised Twister in Wool Mill Operates at 92% Efficiency

AT SACHEM Mills, Winder, Ga., a twister was needed for current production, but no new twisters were available with a 5" or larger ring. The best delivery date was 6 to 8 months, and no used twisters of the desired size were available.

The twister was needed to make 1.9/2 (cotton count) yarn for use in rugs.

The problem was solved by utilizing a Whitin Model E spinning frame and erecting a magazine creel taken from a warp compressor. The creel feeds two yarns to each spindle and permits nonstop operation in that the creel may be supplied with bobbins without having to stop the frame.

92-95 per cent efficiency has been obtained consistently on the single frame. The only disadvantage noted to date is the fact that the frame and the creel combined take up too much floor space.

The only modifications made to

CONVERTED SPINNING FRAME twists rug yarns at 92-95 per cent efficiency and produces 1½-lb packages. Only modifications were removal of feed drums and addition of magazine creel.

the frame were to remove the feed drum so the magazine creel could be employed. The improvised twister produces packages which contain 1½ lb of yarn each. The machine has been in operation successfully for seven months, and the mill is still trying to obtain an additional twister having a 5-inch or larger ring size.

Case 17

Package Dyeing Cycle Controlled Automatically at Crown

RAPID ADVANCES in the use of synthetics and natural fibers in blends have made exact control of dyeing operations indispensible. Crown Manufacturing Company is convinced that full instrumentation provides the key to top quality, color matchable package dyeing.

In Crown's dyehouse, Foxboro Cyclelog controllers, working in conjunction with Morton package dyeing machines, make package dyeing operations completely automatic. Not even the most conscientious operators are able to match the precision and timing made possible by these instruments, Crown has discovered from experience.

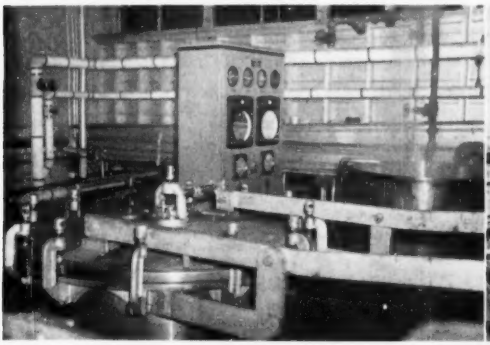
To operate the controller, it is only necessary to set the desired rate of temperature rise, the dyeing temperature, the dyeing time, and press the start button. In ten seconds time, the operator can prepare the installation for any one of a number of intricate dyeing cycles.

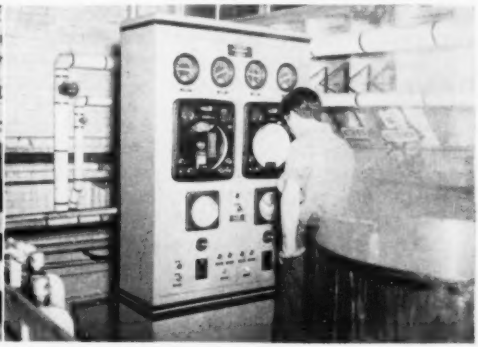
The controller produces a permanent record of the complete operation. By referring to it, the dyer can repeat the identical cycle for another batch at a later date.

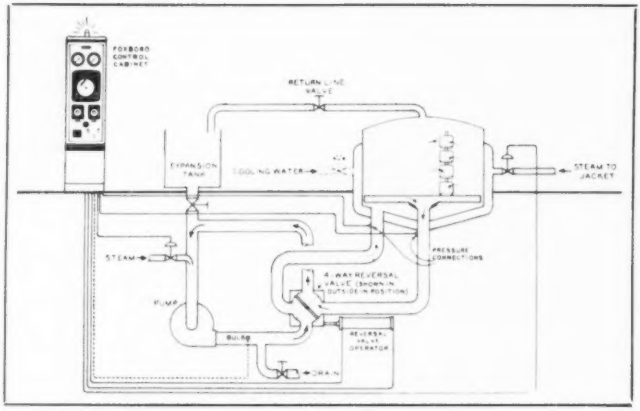
Besides guaranteeing quality, cycle control is achieving monetary advantages for the dyehouse. Procedural standardization resulting from the instrument has allowed Crown to obtain the maximum possible rate of production from its package dyers. Sampling has been largely dispensed with, baths can be run through and dumped without delays, and the elimination of manual control has lowered the work-load.

The control cabinet also includes: two indicating pressure gauges for pressure on "outside" and "inside" of packages, one automatic reversing timer for dye liquor flow, an air switch for emergency manual operation of a

PACKAGE DYEING INSTALLATION includes twin 500-lb Morton units automatically controlled throughout the entire dyeing cycle by Foxboro CycleLog in Crown's dyehouse. The installation permits each 500-pound machine to run independently or as a 1000-pound unit, adding flexibility.







HOW DYEING CYCLE IS CONTROLLED. Automatic control instrumentation for a typical package dyeing machine.

FOXBORO CONTROL PANELS for Morton laboratory (1 to 5-lb) package dyeing machine.

four-way dye flow reversal valve, two electric "on-off" switches for pump motor and timer, a signal light to show timer "on," and two signal lights to show direction of dye liquor flow.

Not only are Crown's production package dyeing machines automatically controlled. When a 1 to 5-pound Morton package dyeing machine was installed in the laboratory, a full complement of Foxboro instruments went along with it. (See photo above.)

The laboratory instrument panel includes an indicating dial thermometer with a range of 40 F to 220 F, two gauges for indicating pressure on "outside" and "inside" of packages, one automatic reversing timer for dye liquor flow, and three signal lights for indicating direction of flow. Also, an automatic-manual air switch for controlling dye liquor flow, two electric on-off switches for pump motor and timer, and panel accessories.

With none of the concepts of dyeing changed and only the scale of operations altered, the transition from laboratory to production dyeing is easily accomplished. And dyeing conditions in the laboratory, backed up by instrumentation, are easily reproduced from experiment to experiment.

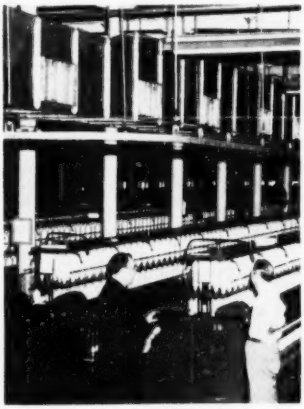
Case 18

Electrostatic Air Filters Improve Quality of Yarn

ELECTROSTATIC precipitators were installed in the spinning and drying rooms to increase overall product quality at Gastonia Combed Yarn Corporation's Clara Mill, Gastonia, N. C. Product quality was adversely affected by air-borne soil accentuated by a local industrial smoke condition.

Trion electric air filtering equipment was selected for the installation and provides a combined air handling capacity of 60,600 cfm (equivalent to the amount necessary to filter air in 38 average six-room homes). After installation, there was immediate evidence of improved product, decrease in labor costs and machinery maintenance.

The air filter operates on the principle of electrostatic precipitation. It is effective in filtering all air-borne particles, including dust, dirt, smoke, pollen, and other air contaminants. The equipment installed at Gastonia is designed to



OVERHEAD DUCTWORK provides outlets for clean air which has been filtered by electrostatic precipitation.

provide an overall efficiency of 90 per cent.

As a direct result of installing filters in the spinning room at Clara Mill, Gastonia reports a considerable savings, realized through higher production efficiency, operating economy, and greatly reduced maintenance costs. The saving is a secondary result of the filter installation. The primary purpose of air cleaning was to increase product quality.

FILTER INSPECTION is easy. Filters are "built-up" in banks and include ionizing-collecting section, collector plates, and after-filter. Right, mill men inspect after-filter on clean air side of the equipment. Power packs are located in adjacent area.

THREE POWER PACKS shown below step up 110-volt a-c to high voltage d-c. Power pack parts are chassis-mounted for quick removal and replacement to reduce down-time to a minimum. Red indicator light tells if the equipment is operating.

A bank of ionizing and collecting cells serves the spinning rooms. As incoming air is directed into the cells, all particles pass through a high voltage ionizing screen where they are electrically charged positively. The air then passes between negatively charged plates to which the particles adhere, and the resultant pure air enters the spinning room, leaving behind the smoke and dirt which previously had to be hand or mechanically cleaned from the room and equipment.

The collected dirt on the filter collecting plates is removed by a wash system which is an integral part of the Trion unit. At Gastonia, the filter cells are washed twice a week, and the entire washing cycle requires 45 minutes. Lint is periodically removed by brushing down the screen, an operation requiring five minutes.

The electrostatic precipitator uses no more electric current than a few electric light bulbs. The unit utilizes 100-volt a-c which is stepped up to high voltage d-c by power packs supplied with the system. The power packs are especially designed to indicate the exact operating condition of the entire filter installation, and they are equipped to fully protect against short circuits and the adverse influence of possible temperature fluctuations.

Case 19

Improved Beamer Brake Eliminates Safety Hazard and Slack Yarn

IT FREQUENTLY takes another improvement on top of an improvement to produce a workable idea in a mill. Typical of this is the case of a mill-designed beaming frame brake now being used at the Proximity plant of Cone Mills Corporation, Greensboro, N. C. Up until a short time ago, the beam was stopped by releasing a foot peddle which threw the drive belt to an idler pulley, and then slowing the beam by pressing a heavy cloth against the beam flange. Not only was this dangerous for the operator, but

TRUMPET that he designed to eliminate the constant breaking of the rope is shown by C. J. Gilley, beamer room operative.

the drums up ahead kept turning, running a lot of slack into the yarn.

To overcome this, a rope friction brake was designed which would stop both the beam and the drums. The brake consists of a rope which passes over the top of the beam flange when it is in place in the beaming frame. This rope ends in a curved, wooden brake block which the operator presses against the flange to stop the beam rotation. The other end of the rope runs to the floor where it is attached to a chain which runs over a sheave and under the floor back to the drums. It then comes up over another sheave and is attached to a strip of leather which runs over the drums and is fastened to the drum frames.

When an operator presses on the wood brake block, this puts tension on the rope which is transferred back to the leather frictions over the drums, stopping drums and beam at the same time.

The only fly in this ointment was the constant breaking of the rope where it was tied onto the chain. C. J. Gilley, an employee in the beaming room, solved this by designing a trumpet to which the chain is attached. The rope is passed through the small end of the trumpet, a knot is tied in it, and this holds the chain and rope firmly together. The result is that there have been no more rope breakages at this point, and the system as a whole works as it was originally planned.

Gilley entered the idea for the trumpet in the Cone Mills Corporation "suggestion system" and was given a cash award.

Case 20

Plastic-Covered Nuts and Bolts Used in Corrosive Chemical Baths

VINYL-ENCASED NUTS and bolts like those being used in chemical baths at Industrial Rayon Corp.

VINYL-ENCASED low carbon nuts and bolts are being used in corrosive chemical baths by Industrial Rayon Corporation, Cleveland, Ohio, to replace more expensive ones made from corrosion resistant metals. Not only does the conversion represent a considerable cost savings—the vinyl-encased nuts and bolts cost approximately 14% as much—it is also said that the plastic covered nuts and bolts resist corrosion much better.

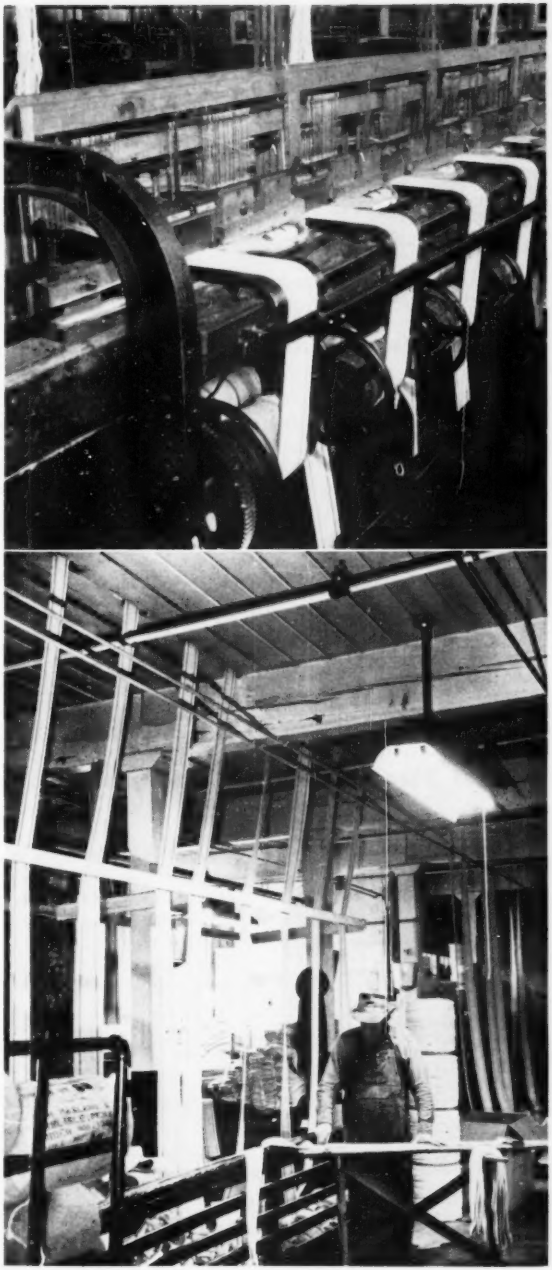
Manufactured by Steere Enterprises, Akron, Ohio, the plastic encased nuts and bolts are used in long narrow tanks, or baths, employed in the rayon manufacturing processes where corrosive chemi-

Case 21

Narrow Fabrics Deposited Directly into Storage Bins

NARROW fabric looms at Mallison Braided Cord Co., Athens, Ga., do not have sand rolls or cloth rolls. The woven back bands, webbing, and other narrow fabrics are delivered directly from the loom through a slot in the floor under each delivery and are deposited in bins on the floor below. An operator removes the woven cloth when he has time and cuts it into specified lengths or rolls it up according to the customers' orders.

Considerable time and space are saved because it is no longer necessary to remove the cloth rolls at the loom and deliver them to another department for other operations. The fabric is delivered directly from the loom to the storage bins, and it is removed from the bins, measured, inspected, and prepared for shipment with a minimum of delays and separate operations. Cloth handling is minimized, and production flow of woven goods is expedited throughout.

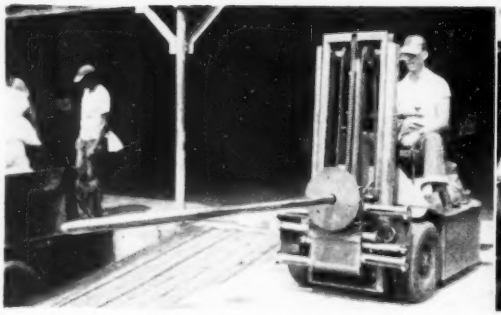


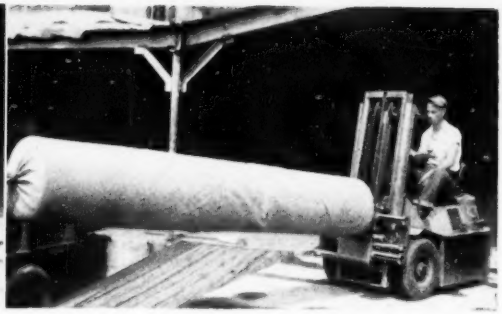
SLOTS IN THE FLOOR (upper photo) provide for passage of the woven narrow fabrics directly to storage bins on the floor below, thereby minimizing handling operations. Fabric is measured, inspected, and prepared for shipment (lower photo) with a minimum of delays and separate operations. Note the slots in ceiling and delivery of goods directly to bins.

cals at elevated temperatures are used. For this application, a 3/64″ semi-hard vinyl coating which resists physical damage during the wrenching operation was found to be most suitable.

A year's experience with these nuts and bolts has shown that a permanently liquid tight seal is maintained, and that the coating effectively protects the metal. Even when the coating has been ruptured from physical damage, the chemical attack is limited to that area and the corrosion products seal the "wound" and prevent continuing reaction.

The plastic vinyl encased nuts and bolt heads are manufactured by dipping a properly preheated nut or bolt in a vinyl plastisol, made from B. F. Goodrich Chemical Company's Geon paste resin.





SPECIAL RAM DEVICE is 6 ft long and is effective in handling rolls of sheeting. Only two or three minutes are required to remove a Load-Grab attachment and install the ram device on the Hyster-20 lift truck. Ram attachment was made in the mill maintenance shop.

Case 22

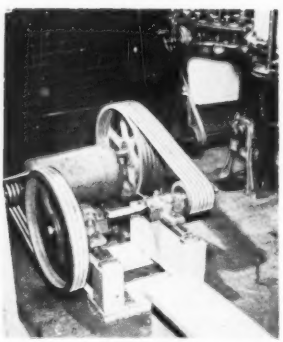
Lift Truck Handles Sheeting Rolls

PACOLET Mills, New Holland, Georgia, load rolls of sheeting 108 inches long and weighing approximately 400 lb with a Hyster-20 lift truck equipped with a 6-ft ram which may be quickly attached for the operation. The ram is inserted in the core on which the sheeting is rolled.

Employing the ram, the roll is picked up, transported, and stacked in the trailer by one man. The procedure results in a saving of 9 man-hours on every trailer of sheeting loaded. The attachment was made in Pacolet Mill's maintenance shop. Four Hyster-20 lift trucks are utilized in the mill's operations at New Holland and Gainesville, Ga.

Case 23

V-Belt Drives on Shoe Lace Braiders Cut Maintenance, Up Production



DOUBLE - REDUCTION V-belt drives like the one shown here are utilized to operate 600 braiding machines.

MAINTENANCE costs have been reduced $200 a month, and production has been increased by 11% since double-reduction V-belt drives have been installed in the shoe lace braiding plant of William Jette & Son, Inc., Providence, R. I.

When the mill was moved from Pawtucket to Providence, H. C. LaTour, plant superintendent, discussed the drive with a Gates Rubber Co. engineer before installing the drives formerly used. After studying the situation carefully, the engineer worked out interesting double-reduction V-belt drives for the installation (see accompanying illustration).

The Gates Vulco Rope drives have been in satisfactory service on 600 braiders for about one year, and they have proved to be a valuable asset in reducing down time and maintenance costs.

Additional case histories begin on page 128

The new and convenient feature of this year's "Modern Production Methods" issue, mentioned in the introduction, begins on the opposite page and runs consecutively to page 128. Following this, additional case histories are presented.

A Convenient Listing of

Equipment Performance Reports

Appearing in "Textile Industries" during 1951

This chronological listing is a convenient means of referring to feature articles or brief items which appeared in TEXTILE INDUSTRIES during the year 1951 and which pertain to mill operating experiences with equipment and supplies, or adaptations of them.

In many instances the references are to editorial reports of the operating executives discussion meetings; other references are to news items and "kinks," such as those supplied by mill men and published in the How Other Men Manage department.

New equipment notices containing manufacturers' descriptions and claims are not included.

As a service to readers, the results secured by the mills are given, but are necessarily brief. Name of supplier is listed only when it appeared in the original article; where no supplier's name is listed, this information will be given to the reader, so far as possible, upon request.

When writing the editors for additional information, please state specifically the item in which you are interested, rather than asking for the entire issue.

Item	Use	Results (Briefed)	Supplier (or source of information)	Refer. (in TI '51)	COTTON	WOOL	SYNTHETIC	WET PROCESS	KNITTING
Electronic let-off	Tricot machines	Better grade of knitwear	GE	Jan. 83					•
Sizing process	Slashing	Automatic take-up of predetermined quantity of size	British Res. Assn.	Jan. 87	•	•	•		
Belt adjustment	V-belts	Provides quick adjustment through use of turnbuckle; requires no sliding base or flexible coupling	Dodge Mfg	Jan. 89	•	•	•	•	•
Fiber strength tester	Fiber tests	Improvement in coefficient of variation; easily calibrated	.....	Jan. 103	•				
Overhead cleaners	Spinning	Reduced gouts 50%	.....	Jan. 104	•				
Crimp-set nylon	Knitting	More covering power and loft	Dupont	Jan. 106 Jan. 124		•	• •		•
Controls	Slashing and other wet processing	Maintain quality standards	Brown Inst	Jan. 126	•			•	
Underframe cleaner	Spinning	Fewer ends down; less gouts	Amer MonoRail	Jan. 137 Feb. 177 June 131	• • •				
Builder motion	Spinning	More yarn on bobbin; more uniformity	.....	Jan. 141 June 133	• •				
Paper	Baling cloth	Faster, less expensive, labor saved	.....	Jan. 151	•	•	•		•
Sheaves (plastic)	Looms	Long life; type bearing affects results	.....	Jan. 153	•				
Fiber-sided shuttles	Looms	Varying, depending on conditions	.....	Jan. 153	•				
Aluminum frames	Loom harness	Varying	.....	Jan. 153	•				
Metallized sandrolls	Looms	Satisfactory	.....	Jan. 153 Feb. 114	• •				
U-Pin and cradle	Spinning	Improved break factor and evenness on higher drafts and finer numbers	.....	Jan. 157	•		•		
Pneumatic rack release	Pickers	More even and firmer lap; saves time; increased yardage	..... Saco-Lowell	Jan. 159 Feb. 120 May 157	• • •				
Flywheel motor	Looms	Smoother lay motion, better power factor, maintenance costs low	GE	Feb. 105	•	•	•		
Drawing frame	Drawing	Less variation in sliver, cleaner	Ideal Mch	Feb. 106	•				
Time controller	Dyeing	Operating costs on dye kettles reduced (knit fabrics)	Taylor Inst	Feb. 107				•	•

(Please turn the page)

Item	Use	Results (Briefed)	Supplier (or source of information)	Refer. (in TI '51)	COTTON	WOOL	SYNTHETIC	WET PROCESS	KNITTING
Pallet conveyor	Overhead in mill	Labor saving	Lamson Corp	Feb. 108	•	•	•		•
Adjustable drives	Spinning	Fewer tapes off, reduced belt slippage, quick changing of frame for yarn numbers, eliminate various size pulleys	Reeves	Feb. 109	•				
Dyeing-sizing machine	Slashing	Increases production, reduces uneven shades, fewer operations	Unistel Tex	Feb. 110	•			•	
Portable stripper	Carding	Two men do work of six. Quick and thorough job	New Eng. Mch	Feb. 111		•			
			.....	May 163		•			
Steel shelving	Supply	No wasted space, better storage	Frick-Gallagher	Feb. 112	•	•	•	•	•
			.....	May 163	•	•	•	•	•
Special finish	Hosiery	Improved dye fastness, absorption, and water dispersal; softer fabric, warmer	Hans C. Bick	Feb. 113			•	•	•
Winder	Sales yarn	Larger packages, improved build, customer acceptance	Foster	Feb. 115	•				•
Metallized parts	Fly frames	Anti-rust, prevent stretched roving, cleaner on rayon stock	Ideal Mch	Feb. 115	•	•	•		
Hydraulic roll separator	Drawing rolls	Saves time in pulling rolls apart when repairing	B & S Mch	Feb. 116	•		•		
Kettle cleaner	Dyeing	Savings in cleaning	Oakite	Feb. 116				•	
Yarn conveyor	B-C spooler	Reduction in labor	Whiting Prod	Feb. 117	•				
Moisture controller	Tenters	Increased production, lower steam consumption	Fielden	Feb. 118				•	
Spring top oilers	Cards	Oil easier and quicker	Gits	Feb. 118	•	•	•		
Measuring and inspecting machine	Cloth room	Measuring more accurate; prevents yardage overshipment	Hermas	Feb. 119	•	•	•		•
Clock spring motion	Loom harness	Less strain on harness	Draper	Feb. 119	•				
Cloth shearer	Cloth room	Processes back and front in one operation; quicker maintenance	P & W	Feb. 121		•			
Roving box	Card room	Safe and self-cleaning	.....	Feb. 121	•		•		
Floor finishing	General mill	Floor maintenance costs reduced	Dupont; Selig; West; Tennant	Feb. 122	•	•	•		•
Selvage trimmer	Upholstery	Reduced trimming time from 45 to 3 minutes	Ginsberg Mch	Feb. 122		•			
Pinboard attachment	Abbott winder	Substantial savings in labor costs	Abbott	Feb. 123			•		
Instrument (compare colors)	Dyeing (hosiery)	Aids in color matching	Inst Dev Labs	Feb. 124				•	•
				Feb. 175				•	•
Overhead beams	Looms	Less crowded conditions, larger beams, easier access to loom parts	West Pt Fdry	Feb. 125	•				
Graphite remover	Lace manufacture	Produce cleaner lace; time saver when running nylon	Atlantic Chem	Feb. 125			•	•	
Powered spindle oiler	Spinning	Lubricant and time saved	Brown Dynalube	Feb. 126	•	•	•		
Mechanical sweeper	General mill, warehouse, shipping	Reduces sweeping time	Handling Devices	Feb. 127	•	•	•		•
Spot humidifier	Carding-spinning	Operates without compressors, ducts, or water pressure	Walton Labs	Feb. 128		•			
Acid controller	Dye-bleach	Secure desired acid strength; quick change	Foxboro	Feb. 128				•	
Steam cleaning	Looms	Rapid and thorough cleaning	Oakite	Feb. 129	•	•	•		
Conveyor presser	Knit finishing	Labor saving	Am Safety	Feb. 130					•
Vibration pads	Spinning-twisting-weaving	Less vibration, no anchoring by lags	Felters	Feb. 131	•	•	•		•
Self-cleaning tank screens	Mill departments	Prevent lint entering pump intake; eliminate hand cleaning	Parks-Cramer	Feb. 132	•		•		
Lubrication system	Line shafts	Lubricant saved; oiling period extended; less dripping	Bijur	Feb. 133	•	•	•	•	•

Item	Use	Results (Briefed)	Supplier (or source of information)	Refer. (in TI '51)	COTTON	WOOL	SYNTHETIC	WET PROCESS	KNITTING
Wet scrubber	Mill departments	Time and labor saved	Finnell; Selig	Feb. 134	●		●		
Pulley drive	Spinning	Higher speed, change from bands to tapes, less maintenance	Meadows Mfg	Feb. 134	●				
Chemical cleaner	Looms	Removes lint, oil, and starch	Moreland Chem	Feb. 135	●		●		
Lap conveyor	Sliver laps	Reduces labor costs	Richard Wilcox	Feb. 136	●				
Viscometer	Slashing	Maintains uniform size viscosity and provides visual record	Norcross	Feb. 139	●			●	
Pneumatic loader	Peralta machine	Gives fingertip control, reduces wear	Foxboro	Feb. 139		●			
Variable speed drive	Cloth inspection	Selective speeds and reverse	Reliance Elec	Feb. 143	●	●	●		●
Tension meter	Quilling-warping-weaving	Uniform tension	Saxl Inst	Feb. 145			●		
Electric lubricator	Spinning	Avoid product spoilage and waste	Lincoln Eng	Feb. 145		●			
Gantry device	Weaving	Permits overhead handling of large beams in narrow alleys	.....	Feb. 147	○		●		
Ceiling cleaner	Card room	Reduced dirty work; fewer tags	Amer MonoRail	Feb. 149	●		●		
Magazine creel	Beaming	Reduced warping costs, doubled speed	McBride	Feb. 149		●			
Fluid drive	Extractors	Less strain on motor; upkeep low	Amer Fluid Dr	Feb. 151				●	●
Fork truck	Finishing	Labor saved; rapid handling	Elwell-Parker	Feb. 151				●	
Nylon bolsters	Spinning	Less sludge formation	.....	Feb. 152	●				
Chemical cleaner	Looms	Quicker operation; costs reduced	Oakite	Feb. 152			●		
Moisture control	Slasher	Increased production; permanent record of slasher operation	Barber-Colman	Feb. 155 Dec. 155	● ●				
Mote door	Card	Easier and quicker cleaning	.....	Feb. 155	●				
Central lubrication	Spinning	Metered delivery; less lubricant handling; cleaner floors	Lincoln Eng	Feb. 157		●			
Steam control	Slasher	Speed of yarn remains constant while steam pressure changes	Brown Inst	Feb. 159	●				
Dewpoint recorder	Hosiery knitting	By converting to relative humidity, shows departments that are not standard	Foxboro	Feb. 161					●
Radiant burner	Tenter	Reduce number of tenter passes	Process Heat	Feb. 161				●	
Humidifiers	Weaving	Increase or decrease output automatically	Parks-Cramer	Feb. 163	●				
Paper tube	Spinning	Less vibration	Am Paper Tube	Feb. 167	●		●		
Tape	Slashing	Holds ends in position	Minn Mining	Feb. 167	○	●	●		
Chemical cleaner	Looms	Reduce cleaning time	Jarrett	Feb. 167	●		●		
Ball bearing rolls	Spinning	Reduced roll picking, lubricant, and oil stains; fewer eyebrows	Machinecraft	Feb. 169 June 133	● ●				
Six-spindle winder	Backwinding	Rewind sample yarn; backwind to determine defects; wind pieces	Foster	Feb. 170					●
Waste machine (1 cyl)	Reworkable waste	Fewer fires	Kirk & Dixon	Feb. 170	●				
Vacuum cleaner	Weaving	Helps reduce seconds from soiled lint	New Eng Mch	Feb. 173	●				
Conical rings	Spinning	Reduce friction on yarn when running nylon	Herr	Feb. 173			●		
Flat belt drive	Looms	Reduces shock	J. E. Rhoads	Feb. 177	●				
Starch system	Slashing	Saves time and labor	Champion	Feb. 179	●				
Measuring table	Hosiery matching	Speed and accuracy	.....	Feb. 183					●
Stop motion switch	Spinning	Saves waste by stopping frame	.....	Feb. 193	●				
Activity vector analysis	Industrial relations (job placement)	Better selection and placement of personnel (production and management)	W. V. Clarke	Mar. 87	●	●	●	○	●

(*Please turn the page*)

Item	Use	Results (Briefed)	Supplier (or source of information)	Refer. (in TI '51)	COTTON	WOOL	SYNTHETIC	WET PROCESS	KNITTING
Steamer	Laboratory and dyehouse	Gives reproducible results on production equipment at less cost		Mar. 92				•	
Card	Wool	High production	Duesbg-Bosson	Mar. 94		•			
Mender	Full-fashioned	Speed, ease of operation	Marvel	Mar. 100					•
Isolators	General mill	Vibration of building reduced, especially in weaving	Lib Mutual	Mar. 102	•	•	•		
Testing equipment	Laboratory and production depts	A 40-page article explaining use, procedure, and results with a variety of testing machines		Mar. 108	•	•	•	•	•
Arealometer	Fiber study	Aids in determining fiber perimeter and weight per inch	Spec Insts Lab	Mar. 170	•				
Treadle link	Looms	Longer life of straps, more accurate adjustment		Mar. 177	•	•	•		
Anti-balloon device	Warping	Checks ballooning at high speeds		Mar. 179	•	•	•		
Blending equipment	Opening and blending (different fibers)	Accuracy and thoroughness	P & S	Apr. 113	•	•	•		
Caustic concentrating system	Dye-finish	Operation and maintenance costs low	Zaremba	Apr. 137				•	
Fluorescent lighting	General mill	Better working conditions		Apr. 155	•	•	•	•	•
Lap conveyor	Carding	Labor saving	Amer MonoRail	Apr. 165	•				
Stroke increased	Spinning	More yarn on bobbin		Apr. 169	•				
Hand truck	Warehouse	Holds load more securely		Apr. 173	•	•	•	•	•
Surface active agents	Tricot knitting	Effective treatment on cotton yarns for tricot knitting	Numerous	Apr. 134				•	•
Opener	Cotton mill	Fluffs cotton for better subsequent cleaning	Sou Reg Res	May 107	•				
Overhead conveyor	Raw stock dyeing	Improved efficiency		May 112		•		•	
Waste boxes	Spinning	Keep clearer and white waste separate		May 114	•				
Winders	Sales yarn	Extra step of automatic winder permits cone-to-cone winding at saving and improved package	Abbott	May 116	•				
Reel for hose	Cleaning	Provides quick access to hose and prevents hose damage	Wayne Pump; Schrader	May 119	•	•	•	•	•
Hosiery turner	Seamless hosiery	Aids in inspection; automatic count	Spec Mfrs	May 143					•
Fire retardant	Cotton storage	Fire control measure and no adverse effects in manufacturing or finishing	Fac Mutual	May 147	•				
Ball bearings	Pickers	Contribute to quality work		May 159	•				
Controlled draft	Drawing frames	Varying		May 163	•				
Ball bearing rolls	Roving	Less oiling and roll picking		May 163	•				
Weight holder	Belger tester	Easy access and selection		May 177	•				
Fluorescent dyes	Mercerized yarns	Produce new type yarn	Aberfoyle	June 96	•			•	
Ball bearings	Old motors	Extend life of motors; reduce friction losses		June 101	•	•	•	•	•
Small bleach range	Dye-finish	Versatility; desizing, washing, dyeing, resin impregnation	Butterworth	June 102				•	
Drive	Beaming	Gradual acceleration, uniform tension		June 115		•			
Metallized top rolls	Spinning	Reworking less than cost of new		June 133	•				
Pneumatic roll pickers	Spinning	Report from 33 mills: good		June 133	•				
Nylon saddles	Spinning	Less oily yarn		June 135	•				
Brushes	B-C spoolers	Reduce wild yarn		June 135	•				
Homogenizer	Slashing	Better weaving		June 145 Dec. 152	• •				
Nylon blanket	Slashing	Longer life		June 145	•				

Item	Use	Results (Briefed)	Supplier (or source of information)	Refer. (in TI '51)	COTTON	WOOL	SYNTHETIC	WET PROCESS	KNITTING
Locust bean gum gel	Slashing	Less shedding		June 145	•				
Endless check straps	Weaving	Longer life		June 149	•	•	•		
Wool oil spray	Air duct	Saving in oil; effective		June 149		•			
Dryer	Laboratory	Rapid testing		June 153				•	
Bracket	Waste cans	Keeps cans in place		June 155	•	•	•	•	•
Yarn tester	Laboratory	Minor fluctuations in conditions do not affect measurement of long term variations	Uster	July 79	•				
Conveyor belt	Hosiery handling	Costs reduced in stamping, labeling, and folding	Tex Trim & Bd	July 85					•
Water softener	Size for throwing	Produces low-cost soft water		July 88			•		
Nylon verge plate	Full-fashioned	Less wear	Tex Mch Works	July 91					•
Hydraulic press	Packaging	Simplified operation	Beaty Mch	July 96	•	•	•		
Conveyor	Production depts	Bottlenecks eliminated	Mechanical Systems	July 104					•
Bale handling	Cotton storage	Speeds bale storage and handling	Palmer-Bee	July 108	•				
Metallizing	Mill equipment	Low cost; saves time		July 113	•	•	•		
Production and auxiliary equipment	Cotton mill	Feature article giving list of improvements made, along with results (Exposition Cotton Mills)	Numerous	July 129	•				
Counter	Quiller	Aids in computing piece rates		July 169	•		•		
Radiant heating	Full-fashioned	Better running plant; fuel savings	Beth Steel	Aug. 87					•
"Throw-Away" bobbins	Spinning	Ship directly to customer from spinning	Am Paper Tube	Aug. 91	•				
Industrial catering	In plant feeding	Mill feeds employees without going into restaurant business	Harding Wms	Aug. 92					•
Perforated bonnet	Picker	Nep reduction		Aug. 98	•				
Overhead conveyor	Between mills	Joins three small unit plants into one	Cleveland Tram	Aug. 116	•				
Waste disposal	Dyeing	Stream pollution reduced	Robert & Co	Aug. 118				•	
Control boards	Production depts	Better production planning and more even distribution of work loads		Aug. 121	•		•		
Pin drafter	American system	Speeds production; even sliver	W & S	Sept. 123		•			
Electric feedrail	Sewing room	Flexibility in production lines		Sept. 133					•
Roving twisters	Braid plant	Relieve backwinding operation	Saco-Lowell	Sept. 136	•				
Tramrail (Cantilever)	Weaving	Avoids pillars in room	Cleveland Tram	Sept. 165			•		
Dryer	Full-fashioned	Finishing costs reduced	Smith-Drum	Sept. 167				•	•
Drape tester	Laboratory	Permits measurable terms	Fab Res Labs	Sept. 170	•				
Bobbin stripper	Roving waste	Labor saving		Sept. 193	•				
Bobbin cleaner	Maintenance of bobbins, roller brushes, and comber dusters	Does better job and faster; also handy for painting bobbins		Oct. 119	•				
Counter	Hosiery	Eliminates overcount in bag		Oct. 123					•
Vertical conveyor	Shipping	Automatic; reduces labor	Davidson Eng	Oct. 124	•				
Hand lotion	Hosiery mill	Reduces pulled threads		Oct. 129					•
Variable torque	Pressley tester	Speeds operation; removes stress on jaws	Cotton Res	Oct. 155	•				
Carborundum stones	Knitting machine parts	Remove rough edges; faster		Oct. 161					•
Stop motion	Lap winder	Reduces singlings		Oct. 169	•				
Aprons	Spoolers	Reduce nicks in bobbins		Oct. 177	•				
Oil absorbent	Mill floors	Prevents dripping below		Nov. 109	•	•	•	•	•

(Please turn the page)

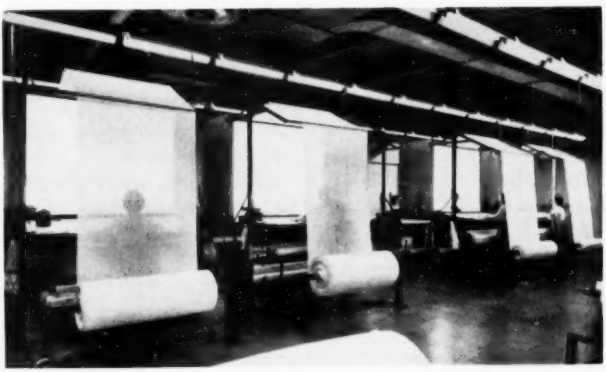
Item	Use	Results (Briefed)	Supplier (or source of information)	Refer. (in TI '51)	COTTON	WOOL	SYNTHETIC	WET PROCESS	KNITTING
Chromium plating	Slubbers	Better appearance	.....	Nov. 123	•				
Strip lighting	General mill	Evenly distributed illumination; easy to clean	Lithonia	Nov. 124	•				
Jig	Back Pickers	Simplifies bending operation	.....	Nov. 131					•
Steam generator	Gas	Reduces fuel and labor costs	Cleaver-Brooks	Nov. 133				•	
Seamer table	Looping	Improved working conditions	.....	Nov. 136					•
Nail polish	Marking	Easily removable	.....	Nov. 245					•
Paper wrapper	Cover machines	Protects machine from rust	Non-Rust Chem	Dec. 97	•	•	•	•	•
Plastic apron	Full-fashioned	Protects stocking from oil	.....	Dec. 113					•
Slubber	Converted twister	Fewer knots, larger packages	.....	Dec. 116	•				
Electronic let-off	Tricot	Reduces fabric shading	Westinghouse	Dec. 122			•		•
Ogden process	Wool dyeing	Simultaneous stripping and dyeing	.....	Dec. 131		•			•
Hydrometer method	Wetting test	Gives readily reproducible results	.....	Dec. 131				•	
Infra-red photography	Dye or finish	Certain problems may be solved by this method	.....	Dec. 138				•	
Hood	Slasher	Higher operating speed	ITT	Dec. 143	•				
Adjustment control	Picker	Handier; fewer off-weight laps	.....	Dec. 144	•				
Redman process	Knit goods	Dimensional stabilization	P & S	Dec. 146				•	•
Synthetic rolls	Slasher squeeze	Good service as finisher rolls	.....	Dec. 153	•				
Multi-motor drives	Slashers	Favorable	.....	Dec. 155	•				
Pneumatic squeeze rolls	Slashers	Control size pickup	.....	Dec. 155	•				
Air cloth guides	Cloth room	Good control, accuracy, simplicity	.....	Dec. 161	•	•	•		
U-Bolt	Picker foot	Prevents trouble with loose and broken heel bolts	.....	Dec. 178	•	•	•		

CASE HISTORY REPORTS

Case 24

Fluorescent Cloth Inspection Lights Save Mill $1500 Annually

THE INSPECTION department of the Gerrish-Milliken Mill, Pendleton, S. C., is equipped with modern lighting to provide illumination for inspection of fabrics. Each inspection unit uses 24 forty-watt Sylvania daylight fluorescent lamps and consists of a luminous panel on both sides, thereby per-



BOTH SIDES OF THE CLOTH are inspected since the new 24-lamp units have been installed on the machines at Gerrish-Milliken Mill. Note continuous-row-type overhead lighting.

mitting cloth inspection from both sides.

Mill engineers estimate that this lighting, designed by Sylvania Electric Products Inc., effects a saving of $1500 a year on materials alone in the inspection operation, without considering the reduction in defective fabric. The saving includes the cost of drop cord lamps previously used in inspection work, the shop cost of making them up, but it does not include the additional time previously required to make an inspection.

Overhead lighting is provided by HFF-208 industrial type units installed in continuous rows.

Case 25

New Outerwear Knitting Machines Increase Production 30%

STINSON Knitting Mills, Inc., Brooklyn, N. Y., manufacturers of novelty knitted fabrics, including patterned, striped, lastex, and plated fabrics, installed new knitting machines from October 1950 through June 1951. Records have been kept by Stinson to compare their latest production rates with those of the old type single-purpose machines.

High speed automatic striping and patterning machines were installed to replace old machines and to provide more production of a larger variety of patterned cloth with fewer machines, less maintenance, and shorter set-up time. The prime objective was to lower manufacturing costs.

Stinson's experience with the new machines revealed a 30% increase in production rates over the old type equipment, and many different types of fabrics are being introduced that previously were not attainable on existing floor space. Production savings have been segregated by management into the following groups: (a) increased speed of manufacture; (b) increased fabric versatility and quality; (c) time saved in altering the machines to make different kinds of fabrics; (d) lower maintenance, repair, and machine tending costs; (e) more efficient use of floor space.

NEW MULTI-PURPOSE KNITTING MACHINES at Stinson Knitting Mills, Inc., Brooklyn, N. Y., for the manufacture of outerwear fabrics.

Model SA-AF machines were supplied for the installation by Supreme Knitting Machine Co., Inc., Brooklyn, N. Y. The Model SA-AF is a multi-purpose high speed, circular Jersey knitting machine equipped with four-color constant-feeding striping boxes, new type pattern placers, and three-position Jacquard type pattern wheels.

Case 26

Anti-Static Agent Tames Yarn in Quill Winding

At one large weaving plant, a bottle and wick attachment to a Whitin quilling machine is proving a simple and effective method for applying Dextrol Lectrostat B. anti-static agent to acetate and nylon yarn.

A stock solution of the anti-static agent is made up, using 1 part Lectrostat to 6-10 parts water. This solution is then placed in the bottle and a felt wick is doubled over and immersed in the solution. A sufficient length of the wick (from ¼" to 1") is left out of

the bottle so that it comes into contact with the filling yarn.

Enough agent is picked up by the yarn as it travels over the wick and is then wound upon the quill. This application has effectively prevented ballooning of the yarn on low twist yarns, kinking of high twist yarns and sloughing off the quill.

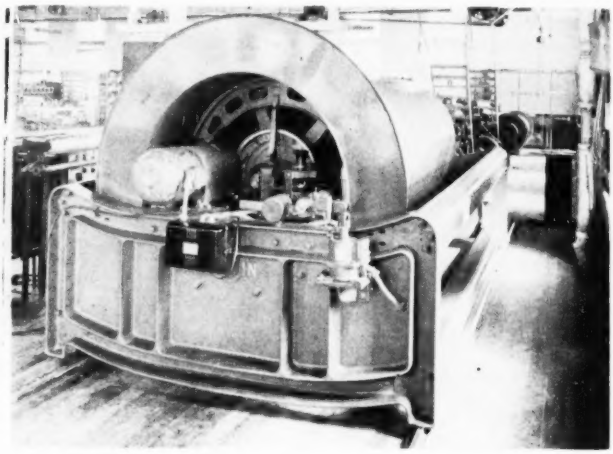
The Whitin Machine Works supplies the bottle and the bar for attaching to the machine. Dextrol Lectrostat B is manufactured by Dexter Chemical Corporation.

Case 27

Fluid Drive Minimizes Maintenance on Dresser Reel

AT THE Roxbury Carpet Co., Saxonville, Mass., a 46-in. diameter Model N Whitin dresser reel is equipped with a 3-hp Link-Belt EG-10 Electrofluid Gearmotor (see accompanying illustration). Yarn from spools of creel are wound on the dresser reel in definite lengths. In this application the fluid coupling of the drive is particularly valuable because the reel is braked to a sudden stop many times by automatic stop motions.

The stop motions employ a drop wire for each yarn end, and the machine is stopped to permit the operator to tie the yarn ends together. The fluid drive automatically assures smooth starting and stopping at all times without injury to gear teeth or other parts of the reel.



SMOOTH STARTING and stopping of this dresser reel are provided by the Link-Belt fluid drive shown.

Case 28

New Type of Noil Collector Improves Wamsutta's Combing Operation

A NEW TYPE collector for comber noil, made by Turner and Hawes, has been credited with better running work at Wamsutta Mills, New Bedford, Mass.

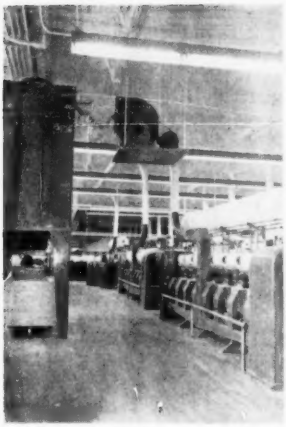
The device, presently installed on three Whitin Model J combers, takes the place of the aspirators. A large fan sucks the noil directly from the rear of each comber and blows it into large bags, like a vacuum cleaner.

Although Wamsutta has only three combers on this system, with larger fans there is almost no limit to the number of combers that could be serviced by one such unit.

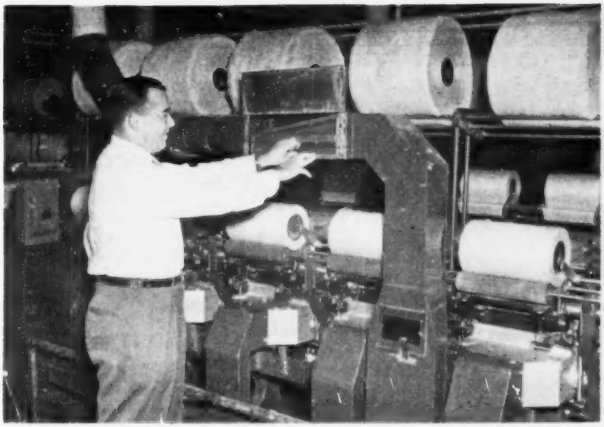
The noil from the bags falls between two compression rolls and then into a large truck to be brought to the wastehouse. The noil that clings to the inside of the vacuum bags is blown down by automatically traveling blow-rings, on the outside of the bags, whose cycles can be regulated.

Wasmutta has found this system to be most satisfactory. In this vacuum system, there is no loading-up of noil in the waste chutes. Therefore, the brushes and half-laps stay clean with little chance of the brushes throwing waste back into the work. With the new system, the vacuum is present even when the comber stops.

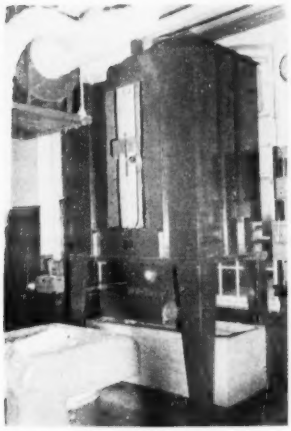
By having a single fan in the



GENERAL VIEW of Wamsutta's three Model J combs and noil collection system. Receiver is visible at the left. For close-up, see photo below.



NOIL PERCENTAGES ARE EASILY CHECKED by inserting special screens in the air line from the particular comber being checked and catching the noil combed out during the test interval. There are also screens which can be inserted in the air ducts from each delivery to determine noil variation among the deliveries of a single comber.



NOILS ARE COLLECTED in this receiver. Two long, mechanically vibrated bags on the inside permit air to escape through the pores while noils fall into condenser which feeds waste truck underneath.

air line exhausted through the vacuum bags, the individual aspirator fans on each comber are eliminated, along with the nuisance of the air exhaust under each machine blowing lint around the room.

By eliminating the aspirators and substituting air ducts, much maintenance expense is also eliminated. Those combers with the aspirators require pipe repairs on an average of twice a year. Also, the elimination of this mechanical part simplifies ordinary cleaning. There is a further saving in labor in that there are no noil pans behind each comber to empty every three hours—the waste man merely pushes the full truck from under the vacuum bags of the collector and replaces it with an empty one.

This system has allowed Wamsutta to check noil percentages more frequently and accurately on the combers so equipped. Special screens are merely inserted in the air line from the particular comber being checked and catch the noil combed out during the test interval. There are also screens which can be inserted in the air ducts from each delivery to determine noil variation among the deliveries of a single comber.

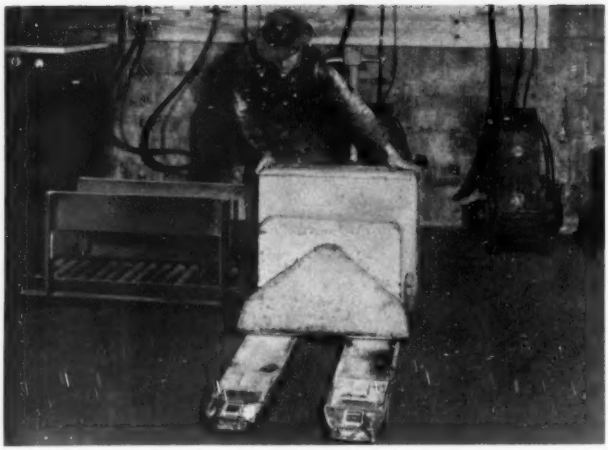
Removing of noil by this new system does not roll the fibers, form neps, or change its form, since the air velocity is slow and the distance to the collector is short. The saleable condition of noils is preserved.

Case 29

Battery Cart Eliminates Lifting

AN EXPEDIENT means for handling industrial truck batteries, reported by Gould-National Batteries, Inc., eliminates lifting and avoids the necessity of an overhead crane. It is helpful wherever battery-powered industrial trucks are used.

The apparatus was developed by the Distribution Terminal Warehouse, Cleveland, Ohio, and involves the skillful design of a four-wheel battery cart. A novel feature of the homemade carrier (see photograph) is the use of a four-foot section of roller-conveyor as a bed. This construction permits batteries to be rolled on or off the cart—no lifting is necessary. Other battery cart components include four 2-foot sections of structural angle iron, four casters, and



SECTION OF ROLLER CONVEYOR is utilized as a bed for the four-wheel cart which permits industrial truck batteries to be rolled on or off without lifting.

some scrap wood.

To assemble such a battery cart, secure a caster to each corner of the conveyor-section so that the section rolls freely on the floor. Weld a structural angle at each corner of the section, perpendicular to it and on the opposite side from the casters. The angles form uprights for a framework which prevents the battery from being pushed off the cart. To complete the framework, bolt 2x8-inch planks across both sides and one end of it. The 2x8 at the other end should be removable to allow the battery to be rolled on and off.

When removing a battery, the operator simply rolls the carrier to the "walkie" truck and slides the battery onto the conveyor-section. The carrier is then pushed to a charging location. Distribution Terminal Warehouse has a carrier for each battery; therefore carriers are not unloaded during charging. A night attendant puts the batteries on charge and records the battery number, date, specific gravity, charger number, voltage, and charging time. The next morning an operator rolls carriers to the trucks and replaces the fully charged batteries.

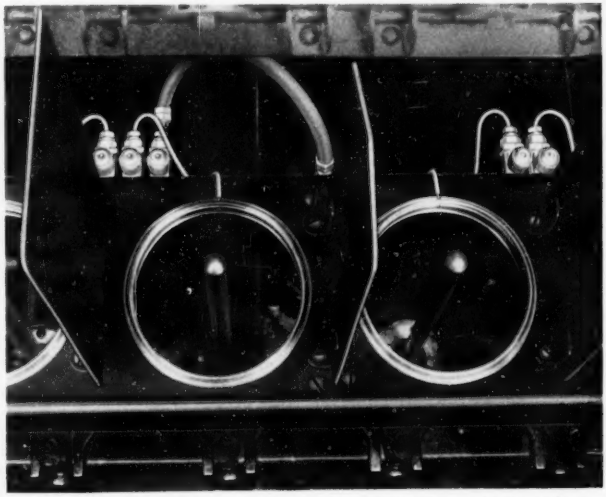
Case 30

Central Lubrication Saves $1300 Per Twister Per Year

IN THE Ashton, R. I. plant of Owens-Corning Fiberglass Corporation, Textile Products Division, Lincoln Centro-Matic oiling equipment on Saco-Lowell 4-in. ring twisters has made annual savings estimated by the mill and attributed directly to the oiling equipment as follows:

Reduced oil consumption	$ 78.00
Reduced oiling labor	467.00
Increased traveler life	212.00
Fixed cost reduction	564.04
Savings per year per converted twister	$1303.04

The estimate on savings is based on a spindle speed increase of 8.5% on an average yarn count. However, the lightest yarn count (approximately 100 denier) was processed at an increased spindle speed of 40% to determine the possibility of reaching the maximum speed which may be obtained



CONVERTED RING TWISTERS equipped with Centro-Matic oiling system were operated at 8.5% increased speed.

from the twisters without adversely affecting the quality of yarn. Despite the increased operating speed, yarn quality is said to be better than that produced at standard speeds and with manual ring oiling. Traveler life has been increased five times what it was when manual oiling was practiced.

The installation of oilers was so successful that all new twisters now on order by the mill are to be equipped with these oilers. In addition, the machinery in an anticipated plant will be so equipped.

Case 31

Split Web Doubles Card Production

ON FLAT top cards running strips and making sliver for use as a core in braided welt cord, double the production was obtained from each card for this particular type of operation by using a flat card gauge on the wood bonnet to split the web into two pieces. When the web is split, two coiler heads are used on each card.

H. J. Stewart, manager of Stewart Braid Mill in Carrollton, Ga., devised the arrangement and used two standard coiler heads on the cards. The card shown in the photo is running two heads of 27 grain sliver each. The divider on the bonnet must be made of a card gauge or metal of equal quality—shim stock was tried for the application, but it was too soft and got torn up by the card clothing. The 40-inch card shown is fed by Bramwell feeder.

Case 32

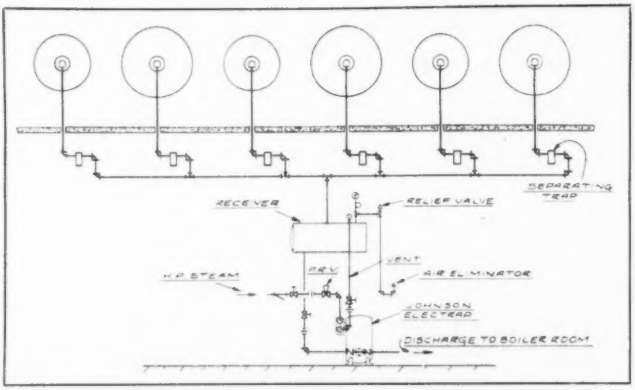
System Effects Savings in Handling Slasher Condensate Drainage

A COST-CUTTING method of returning condensate from the slasher to boiler room has been favorably reported by a well-known textile mill. The system was engineered by the Johnson Corporation, Three Rivers, Mich. Electrap, an electrically operated pumping trap, served as a nucleus for the system.

The system replaces the conventional centrifugal pump and receiver ordinarily used to get condensate from high pressure processing equipment back to the boiler room. The Electrap system is closed, and condensate is returned to boiler room with heat units intact. In the installation (see diagram on page 134), condensate is drained from slasher by separating traps and is discharged into the receiver at approximately 220 F.

Operation of the system is completely automatic. The unit consists of a chamber, three-way solenoid valve, and two motionless electrodes which determine the operating cycle. There are no moving parts. Operation is as dependable as the flow of electricity.

Condensate flows into a chamber until rising level reaches short element which completes a circuit through a relay. The relay operates the three-way solenoid



HOW SLASHER CYLINDERS ARE DRAINED by the completely automatic Johnson Electrap system.

valve to admit boiler pressure. This pressure forces condensate in the chamber back to boiler room. When level falls below long electrode the three-way solenoid valve closes inlet, and vents pressure to condensate receiver, where condensate is held at 220 F. Then the Electrap fills again, renewing the cycle.

Case 33

Life of Back Greys Extended by Thorough Cleaning Operation

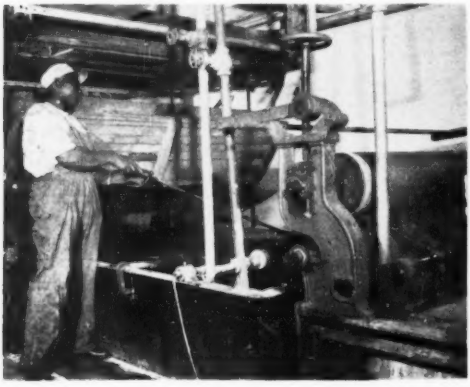
IN ROLLER printing, back greys become so impregnated with dye that they must be removed and cleaned. By employing specialized detergents the dye can be removed readily. However, after the detergent has been selected an efficient means of applying it must be found. City Textile Printing Co., New York, N. Y., was confronted with the problem and devised a practical arrangement for cleaning the long back greys.

When one of their cloths becomes stiff with dye, it is unreeled —via an overhead feeder—is fed, in folds, into a 1000-gallon cleaning tank. The tank is less than ten feet in length so the long cloth must be fed into the tank in a series of loose folds or layers. A specially designed feeder provides for this.

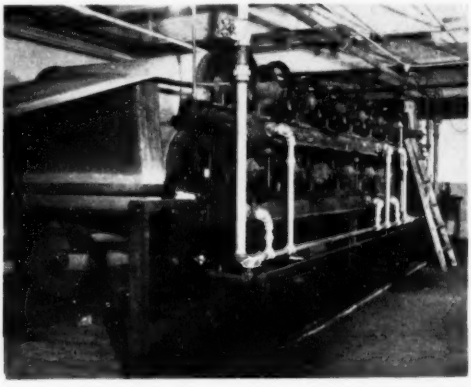
In the tank the grey cloth is allowed to soak overnight in a special Oakite cleaning solution maintained at 190 F by open steam lines. The solution contains a mixture of two carefully compounded materials employed to remove the printing dye much more effectively than if either material were used alone. The composition of one material provides for the rapid wetting out of the dye. Then, once the dye has been thoroughly penetrated, the second product emulsifies, or holds it in suspension. The combined action permits the complete removal of the dye during the overnight soaking period.

In the morning the cloth goes through two rinse tanks equipped with rollers and then through a spray rinse. From the spray rinse it passes through a series of heated copper rolls where it is dried. After drying, the clean back grey is re-rolled and is again ready to

SOAKING TANK receives 1000 yards of grey in loose folds. Grey soaks overnight in cleaning solution.



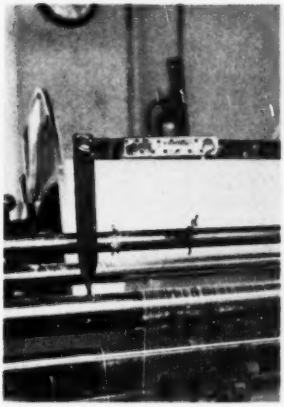
COPPER ROLLS DRY CLOTH after cleaning and rinsing and prior to rerolling.



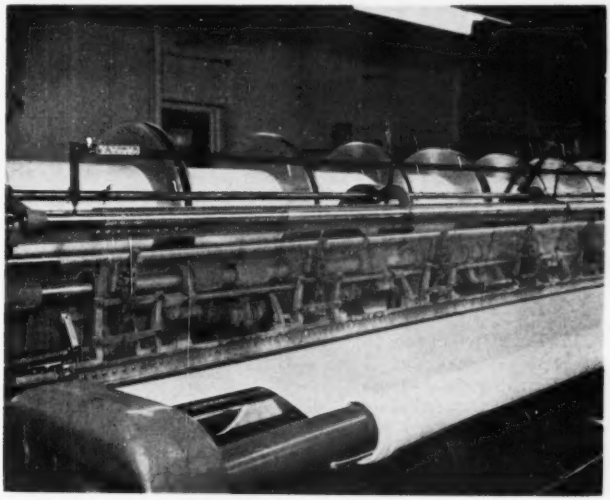
be used in the printing operations.

The method of cleaning grey cloths, as employed by City Textile Printing Co., was developed by one of the plant managers. The process has proved so successful that the firm frequently receives requests to clean the cloths of other printing houses in the area.

Case 34



IMPROVISED THREAD GUIDE eliminates the need for putting cones of yarn behind the machine to replace bad threads.



THREAD HOLES ARE POLISHED to prevent snagging the yarn on the improvised thread guide for tricot machines.

Thread Guide Aids Quality Control, Saves Time in Tricot Production

A METAL BAR fitted onto tricot machines serves as a thread guide which eliminates the need for putting cones behind the machines and utilizing the pigtail guides in instances where some of the warps are improperly beamed. There are sometimes heavy and light threads put on the same beam by mistake, and the simplest method to remove them from the cloth body is to repaste the warp with masking tape and draw all of the light or heavy threads through the guide to carry them to the selvage of the fabric.

The difference between 30 and 40 denier filament yarn is not easy to detect in the warping operation, and if there were ten heavy threads per beam then there would be 80 bad threads in the entire warp. It is much simpler to repaste the warp and draw the threads to the selvages than it is to place 80 cones of yarn behind the machine and use the pigtail guides provided for the purpose. In the latter procedure the heavy threads are wasted because they are cut out of the warp. The cloth selvages are usually waste anyway.

Wrought iron was used to make the thread guide, and the holes are spaced on ½″ centers throughout the length of the horizontal member. The holes are polished to prevent snagging the yarn, and the holes are staggered on the two rows. A special offset arm is provided at each end of the guide to deliver the threads to the guide bar. The horizontal guide bar (improvised) prevents tangled threads when warps have to be repasted because of bad beams.

Case 35

Loom Cleaning Costs Reduced

A MILL in Georgia had been cleaning looms by hand-wiping with mineral spirits. The superintendent, dissatisfied with slow, inefficient hand application, and the cost and fire hazard involved, decided to try a newly de-

veloped solvent detergent.

A solution of Oakite Composition No. 8, mixed 1 to 15 parts with water, was sprayed on the looms through a Model 374 sprayer and allowed to soak. The looms were then blown down with air.

The solution, running down on the floor under the looms, was easily mopped up, leaving the floor free of the black grease deposits which could not be picked up by the regular floor scrubbing machine.

The mill superintendent was pleased to note that this method cut costs by two-thirds. He was also happy to find that the solution eliminated fire hazard and had no disagreeable odor.

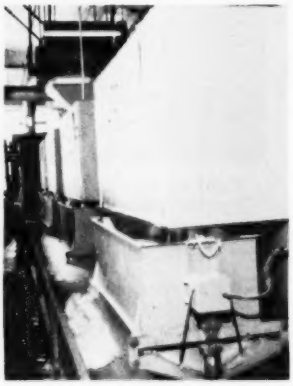
Case 36

Uniformity of Rayon Blends Improves with Fiber Meter Installation

FOUR Fiber Meters now feed two lines of pickers at Chicopee Manufacturing Co., Athens Division; whereas formerly rayon sandwich blends were hand-mixed. An improvement in operations has been noted in that the blend now contains more exact proportions of fibers. The Fiber Meter saves labor of ten operators (on all three shifts combined). The blend is uniform.

Less floor space is required, the fire hazard is reduced, and the floor and surrounding areas are much cleaner since the Fiber Meters were installed. The new installation has also relieved considerable traffic congestion which resulted from space limitations in the picker room.

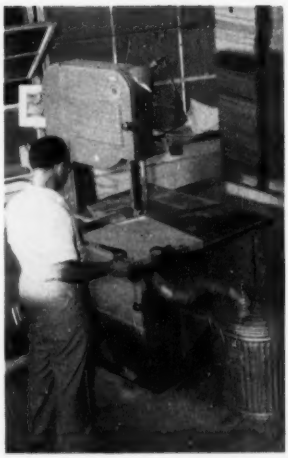
W. D. Dodenhoff Company, Inc., Greenville, S. C., supplied the Fiber Meters, and each machine will handle from 200 to 500 lb of fiber per hour, delivering it in any desired unit of from 8 to 32 ounces.



Case 37

Manufacturer Saves $500 per Week by Using 20″ Band Saw

MANUFACTURERS of wearing apparel, The Jacobs, Grossman and Rosenberg Company, Philadelphia, turned a costly problem into a $500-a-week saving by making its own dress inserts. To fill out the shape of its lightweight summer garments, the company bought die-cut cardboard inserts at a cost of ten cents a dozen.



BAND SAW cuts stack of cardboard inserts to pattern. A simple clamp holds the stack of cardboard in place for the operation.

Purchaser of thousands of dozens of these inserts, the company was faced with a substantial rise in production costs when the insert prices were increased. Believing the solution would be found in making its own inserts, a Crescent 20″ band saw was purchased from the Rockwell Manufacturing Co. dealer in the area.

By buying mill end stocks of cardboard, the company acquired its insert material at a very economical cost. Soon a production set-up was organized in which two men were able to turn out over 50,000 inserts per week. The operation works this way: One man places an insert already cut to shape from the last stack of inserts on the uncut two-inch stack of cardboard. Held together by simple clamps, the stack is then passed to the band saw operator who merely cuts around the shape of the insert on top.

The company figures it costs about 3½ cents to make a dozen inserts, permitting a saving of 11½ cents per dozen or $500 per week.

When enough inserts are made, it does not mean the end of the use of the band saw, because it is employed throughout the year for maintenance and other work.

Case 38

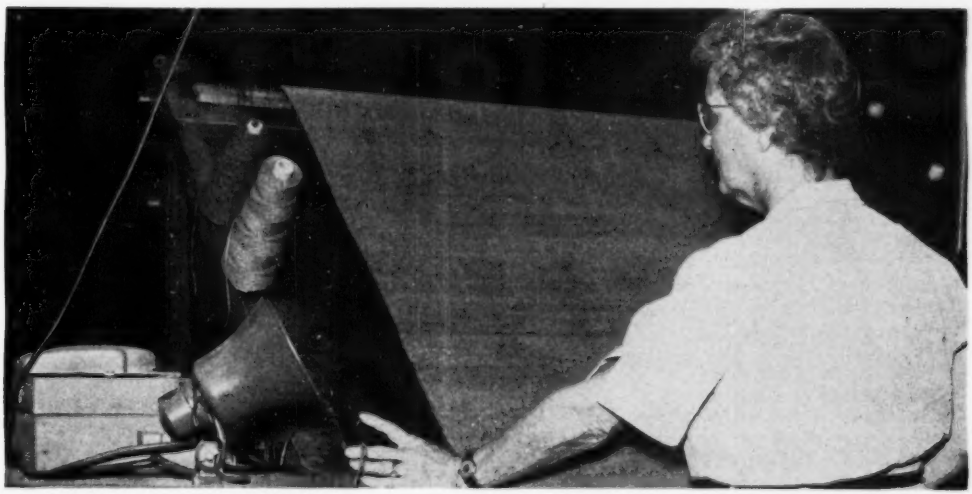
Operations Speeded When Inspector Dictates to Burler

CASE HISTORY REPORTS

PRODUCTIVE CAPACITY and the flow of goods within a textile mill are only as high and rapid as the rate at which manufacturing intelligence can be transmitted from process to process. As manufacturing efficiency spirals continually higher throughout the industry, more efficient means of intra-plant communications are becoming essential. This has been accomplished by the "disc jockey" method at one plant—with great savings in time.

Among the older methods of transmitting processing instructions or production data, there are color-coded markers, piece tickets,

INSPECTOR USES AUDOGRAPH in conjunction with yardage counter. As a defect is noticed, the inspector "tells the burler about it," and where located. The Audograph disc is attached to the cut of cloth.



BURLER'S WORK IS SPEEDED because she can advance the fabric at high yardage until the defect is due to appear, as "notified" by the inspector who has dictated into the mike. Chalk marks were formerly used.

production orders, memorandums, inscriptions on the product itself, and word of mouth, telephone, or radio. To this list can be added visible and audible signals.

IBM cards and pneumatic tube conveyors are among the latest innovations in this field. Another new entry into the field is the dictation machine. At the Carlisle, Pa., plant of C. H. Masland & Sons, dictation machines have graduated from conventional office use to a full-fledged production tool.

Gray Audographs have been installed at each inspecting and burling table in the Masland plant. Used in conjunction with yardage counters, these recording instruments are helping set new production records in the mending department. Here is how they are employed.

Carpet fabric is mended in two stages. In the first one, an inspector meticulously examines a cut, locating all defects. The cut is then conveyed to the burling table where defects are repaired. The recording apparatus enters the picture when the inspector, having observed a defect while the piece travels over the table, recites the nature of the defect and the yardage at which it occurs into the microphone of the Audograph.

After the full cut has been examined, the inscribed disc is removed from the recorder and inserted into an envelope stapled to the cut. The disc may be handed directly to the burler if the cut is ready for immediate mending.

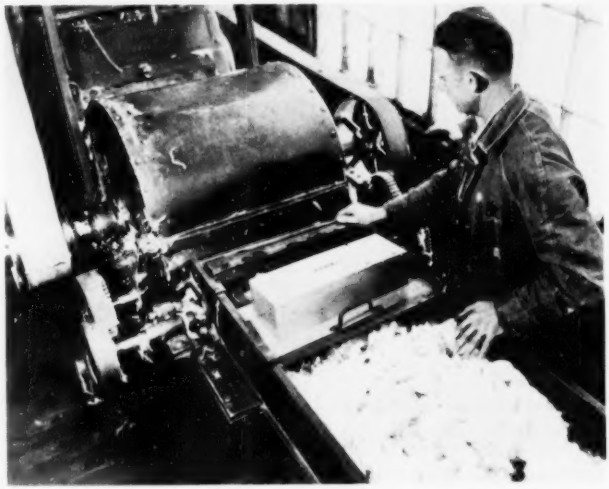
This disc is replayed by the burler on her Audograph. Listening for reports on defects, the burler advances the cut at high speed to the yardage noted for each defect and repairs them. Formerly, the burler would slowly examine the entire length of cloth in search of chalk-marks. In case one chalk-mark was accidently neglected, the operator would have to run the piece through again.

Recording has eliminated the visual search factor. The increased production made possible has permitted release of 25 per cent of the original burling personnel for assignment in labor-short war work departments of the mill. Chalk-marking is eliminated.

Case 39

Magnetic Tramp Metal Separator on Waste Machine Reduces Fire Hazard

THE Appleton Company, Anderson, S. C., producer of cotton flannels, uses an Eriez Giant plate-type magnetic separator for protection from fire and from machinery damage. As shown in the picture, the unit is installed on a waste cotton conveyor line. The magnet prevents bolts, nails, clips, and other ferrous impurities in waste from striking a spark and causing a fire or machinery damage.



TRAMP METAL IS REMOVED from waste processed on this machine by the plate type magnetic separator shown immediately in front of the operator.

There have not been any fires in the waste machine since the magnet was installed, according to the company.

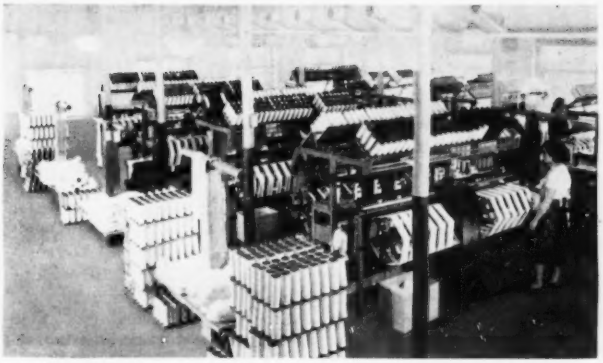
The plate magnet is a flat unit, as the name implies, made up of a series of alnico castings which are mounted on magnetic steel plates, surrounded by an insulation strip of non-magnetic material. This strip prevents magnetic leakage when the unit is installed in machinery. The magnet may be easily installed in existing, as well as new equipment.

Case 40

Skein Reelers Lower Operating Costs

IN THE Montreal plant of Belding Corticelli, Limited, 12 Fidelity skein reelers are now doing the work of 36 old style reelers.

Reduced Labor Costs. With the



NEW SKEIN REELERS in Belding Corticelli's Montreal plant.

old type reeler it was necessary, in most cases, to have men operators who, in addition to operating the reel, also had to remove the heavy reel flys and place them on stands in a section where girls were employed for lacing. With the new reelers, only women operators are employed, and they now do the entire operation of reeling, lacing, removing skeins, and bundling. This has resulted in a definite saving in labor costs.

Quality Improved. The changeover from the old type reels has increased production and has saved considerable floor space. All work is now done on the new machines without any special attachments such as were found necessary on the older reels. Waste has been reduced, operating conditions have improved, there is a great saving in reduction of contamination by dirt, skeins are of the proper size for efficient dyeing, and better skeins result from a more definitely regulated skein yardage.

Less Maintenance. Maintenance or upkeep of the Fidelity reelers is considerably less than on the old type reel, and the operators actually produce more and yet have a lighter work load and better working conditions. The overall cost of reeling has been reduced 20% to 25% through the installation of these machines.

Case 41

New Machine Speeds Up Rayon Warping

AMERICAN Viscose Corporation's Textile Research Department is now turning out section beams in as short a time as four and a half hours in experimental work at Marcus Hook, Pa., with a new Sipp-Eastwood beamer. It is emphasized that this is not a commercial operation. Each beam carries 766 ends of 100 denier rayon 53,000 yards long, and beams have been wound with as low as six breaks each.

In the Avisco experiments, as a result of improvements in the formation of the cakes, coning is bypassed, the beamer being fed directly from the cakes. Time and motion studies have also enabled Avisco to reduce to thirty minutes the time required for three experienced girls to tie the 766 knots necessary each time a new beam is started.

Electronic control keeps the

BEAMER, fed directly from cakes, has electronic control which keeps yarn moving at constant speed and provides for an automatic stop without skidding whenever there is a break.

yarns moving at a constant speed and provides for an automatic stop, without skidding, whenever there is a break. As a result of these and other refinements the speed at which it is being run by Avisco is approaching 450 yards per minute operating from cakes, in contrast to the usual 300. Other refinements are a traverse, quick-doffing arrangement, pre-setting counter, and an instant speed change.

Note in the photograph on the preceding page the rayon cakes in the magazine type creel.

Case 42

Low Steam Consumption in Finish Boarding at Dexdale

DEXDALE Hosiery Mills, Lansdale, Pa., full-fashioned mill, finds that steam consumption is low for its battery of eight Turbo finish boarders, running to 3200 pounds per shift, during which time 2080 dozen pairs may be boarded. Each machine operates on 1¼ psi steam, using 50 pounds per hour. The machines are serviced by an overhead 10 psi line tapped off a 100 psi main.

Stockings are quick-dried in 60 to 90 seconds at a dial set tempera-

Case 43

Electric-Powered Drawbridge Speeds Material Handling

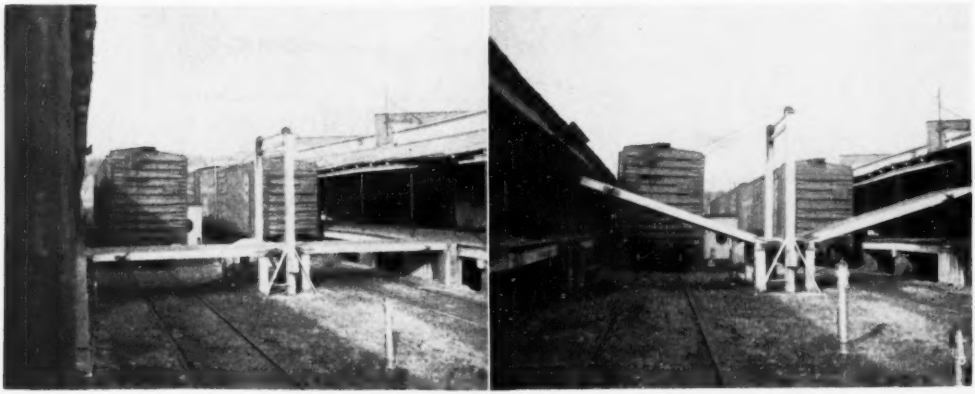
NO LONGER is it necessary for operators of fork trucks or hand trucks at Cone Mills Corp., in Greensboro, N. C., to laboriously place gang boards across railroad tracks from warehouse to warehouse or from warehouse to plant when moving loads of bales or beams. Electrically powered drawbridges, with pushbutton controls, provide a safe crossing for even the heaviest industrial trucks.

Like so many other mills, Cone's plants in Greensboro and Hillsboro, N. C., are spread over several buildings separated by railroad tracks. Getting from the platform of one building across the tracks to the platform of another was a considerable job, especially with truck and load weights as high as 10,000 lb. Gang boards could safely handle small hand trucks, but something more substantial was needed for heavy lift trucks moving over wide double track areas.

For a number of years, hand-lifted drawbridges with wood decking had been used at several heavily traveled cross-overs, but these were hard to handle, wore out quickly, and required a lot of operating time in lifting and lowering them to permit shifting of rail cars.

The Engineering Department has now solved the problem by designing and installing electric motor powered, steel deck bridges which will serve for many years with very little maintenance. A total of five bridges are now in place at

DRAWBRIDGE BETWEEN WAREHOUSES at Cone Mills Corp. White Oak plant. Note that it is a double-track type with support columns in the center. Bridge normally remains lowered (left photo), being raised only when shifting of freight cars is necessary. Right, bridge starts to open.



ture of about 190 F with lower or higher temperatures for fine deniers and heavier weights respectively. A 1½ hp motor drives a fan which directs heated air from the top of a form down over leg and welt. By recirculating 90 per cent of the air within the retort, moisture regain is kept at a level that discourages static and its attendent handling problems.

FINISH BOARDING department at Dexdale Hosiery Mills is equipped with a battery of eight Turbo finish boarding machines.

Between Buildings Separated by Railroad Tracks

the three plants, two double track type at White Oak, two single track at Proximity, and one single track at Eno, in Hillsboro.

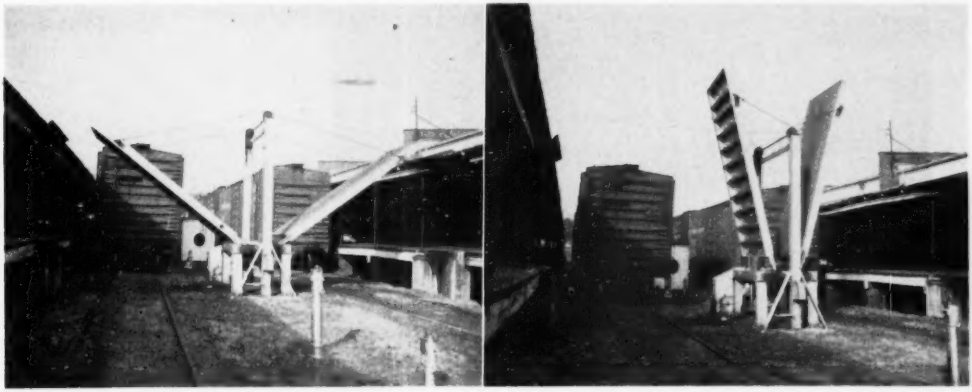
The design for the double track bridge and the single track bridge is similar except that it raises and lowers on only one side, the columns to which the bridge is lifted being placed on one side of the track instead of in the center between two tracks.

The bridge, itself, is constructed of structural steel channels covered with ¼" checkered steel plate. A width of seven feet was selected to permit plenty of room for maneuvering an industrial truck.

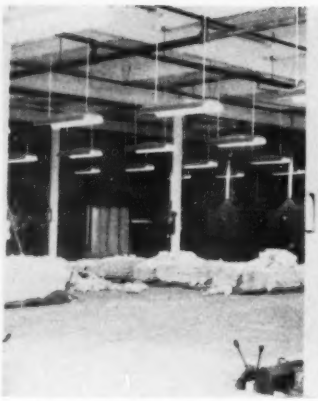
Hoisting is accomplished through ½" flexible wire hoisting ropes which run from each side of the bridge, over sheaves at the top of the support columns. The ropes then run down the columns to 12" hoisting drums located at the base of the bridge. These drums are powered by a 1½ hp (1 hp on single bridges) gear head motor with built-in disc brake coupled to a worm gear speed reducer resulting in a drum speed of 2.5 rpm. The bridge is raised in approximately two minutes at a hoisting speed of 8 ft per minute.

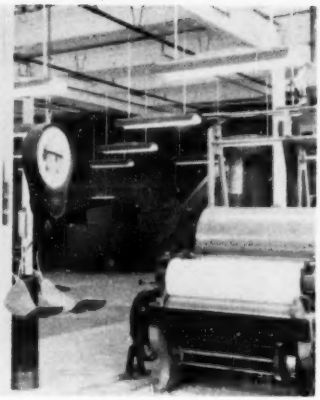
Pushbutton controls are conveniently located on the platforms so that operators on either side of the track may raise or lower the bridge. The bridge normally remains lowered, being raised only to permit the shifting of cars.

PUSHBUTTON CONTROLS are conveniently located on the platforms so that operators on either side of the tracks may raise or lower the bridge. Bridge is about one-half open in the photo at the left; right, fully open. Width of bridge is seven feet to accommodate industrial type trucks used at these textile plants.



CASE HISTORY REPORTS





NO. 7 FILTER BAGS are employed in the opening line in the new quarters. Note the abundance and location of fluorescent light fixtures which provide more than enough light.

SUPERIOR PRE-OPENERS were supplied by Centrif-Air and attached to feeders.

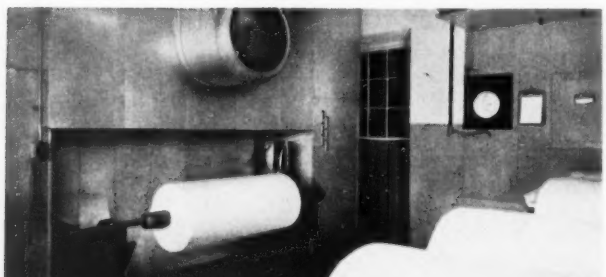
Case 44

Revamped Opening and Picking Improves Product

REVAMPED opening and picking equipment located in new quarters has improved operations at Mallison Braided Cord Co., Athens, Ga. The new machinery layout does a better job of preparing the stock for subsequent operations, health conditions have been improved, and cleanliness is notable.

Three new Centrif-Air Superior pre-openers have been attached to feeders, and L. J. Glass, Jr., vice-president at Mallison, reports much better cleaning and improved condition of stock delivered to the picker line. Atmospheric conditions have been improved, and the old dust house has been eliminated. The dust house was a source of trouble in cleaning (once every

Case 45

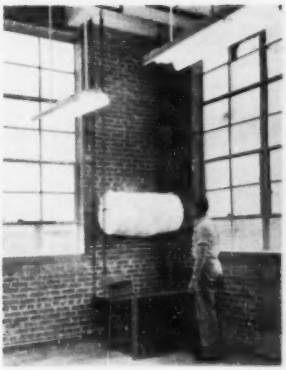


SURFACE TEMPERATURE of the six rolls in this nylon heat setting machine at Kenyon Piece Dye Works is automatically measured and recorded on a single chart. Note recording instrument on rear wall at right.

Instrument

IMPORTANT benefits, both as to uniformity of quality and rate of production, have been reported in the operation of hot-roll type machines which have been equipped with roll-surface temperature measuring systems developed by The Foxboro Company. Calenders, slasher cylinders, contact-type cylinder dryers, and pressing machines are among the types of equipment on which the sys-

NO. 6 AIR FILTERS in the picker line constitute a notable feature of the new arrangement. Note the clean appearance and absence of fly, which help improve health conditions.



LAP CONVEYOR transports picker laps to the card room on the floor above.

and Promotes Cleanliness

week), and when a fire occurred it went to the dust hole and necessitated stopping everything to clean out.

The improved cleaning enables the company to produce much brighter white products.

The new structure housing the opening and picking is a two-story addition to the mill. The bottom floor is concrete and houses the opening and picking machinery. All windows in the new structure are hammered Aklo 1/8″ frosted glass to provide low coefficient of heat transfer.

A notable feature of the new arrangement is the application of No. 6 air filters in the picker line. No. 7 air filter bags are employed in the opener line, and there is a marked absence of excessive dust in the opening room when operations are underway. New fluorescent light fixtures provide more than adequate lighting. A new lap conveyor transports picker laps to the card room which is located on the floor above.

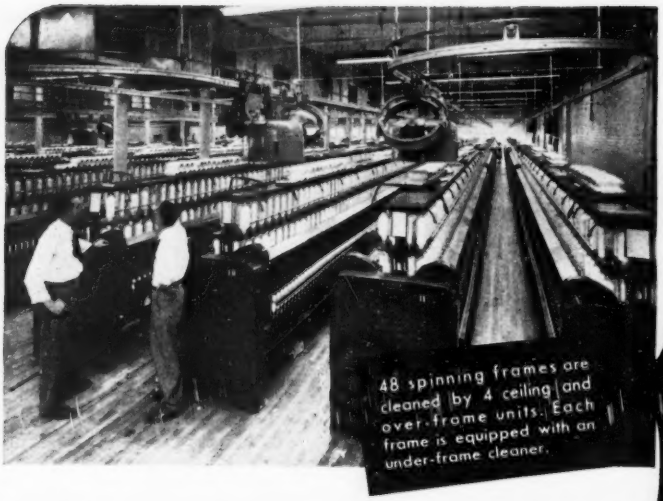
Records Six Roll-Surface Temperatures on Single Chart

tems have been employed.

An interesting example is the installation at Kenyon Piece Dyeworks, Kenyon, R. I., where six of these surface-temperature measuring heads are in use on a six-roll heat-setting machine, and connected with a six-point Multi-Record Dynalog. This all-electronic recording instrument makes six continuous temperature records simultaneously, in different colors and all on one chart; and these records enable the operator to maintain exactly the desired fuel feed to control the heat of the individual rolls.

The machine, built by National Drying Machine Corp., heat-sets 48″ nylon fabric at a normal speed of 43 yards per minute, and operating temperature is maintained at 435 F. For other fabrics, operating speeds have been as high as 60 to 100 yards per minute, with temperatures held at points appropriate for the work.

The temperature measuring system was installed when the machine was purchased, more than two years ago, and has never required any time or expense for maintenance or repair. Plant Engineer C. A. Rounds has expressed himself as highly pleased with its performance. He praises the ac-



Gastonia Combed Yarn Corp. USES AMERICAN MONORAIL AUTOMATIC CLEANING Throughout Yarn Mill

*Registered Trade Name—Universal Winding Co.

"The sole reason for putting in automatic cleaning was to increase quality, but we're getting a lot of other benefits," said Mr. J. J. Hinds, general superintendent of Gastonia Combed Yarn Corp., Gastonia, N. C.

Quality has been increased in cleaner yarn with a better appearance. Production is increased in the card room and the spinning room because machines do not have to be stopped for hand cleaning of the ceilings. American MonoRail Automatic Cleaners have virtually eliminated this time-consuming job.

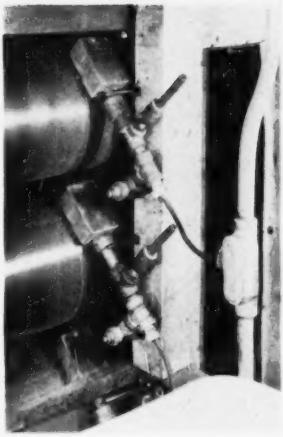
Added to these are other advantages, such as smoother running work, cleaner rooms that improve employee morale, reduction of accidents, dead air pockets broken up, fire hazards reduced.

An American MonoRail engineer will gladly explain all the advantages of American MonoRail Automatic Cleaning at your convenience. Write today for an appointment.

THE AMERICAN MONORAIL COMPANY

13106 ATHENS AVENUE **CLEVELAND 7, OHIO**

curacy of measurement, the convenience and reliability of the instrumentation, and its dollars-and-cents value in the prevention of possible damage to expensive material through mistakes or fluctuations in the processing.



MEASURING HEADS for two of the six rolls are shown in this close-up photo. Each is connected with the six-point Multi-Record Dynalog, shown on the wall in the photo on page 142, which makes six continuous temperature records simultaneously, in different colors and all on one chart. With these records, the machine operator is able to maintain exactly the desired fuel feed to control the heat of the individual rolls.

Case 46

Safe and Strong Hose Clamps Made with Special Tool

A SPECIAL TOOL, designed and built by an employee, has simplified and improved the method used to clamp a nozzle on an air hose at Joanna Cotton Mills, Joanna, S. C. The tool may be used to make a strong clamp with a piece of wire, which may be substituted in place of metal couplings previously used. The wire clamps are much stronger and safer than wire clamps made with a pair of pliers.

The wire is looped around the hose with the closed end of the loop around the base of the tool (see illustration). The two free ends are pulled through the loop and up around the studs on the side of the tool. The wing nut is turned until the desired tension is obtained, and then the ends are bent over and cut off. The short stubs are buried in the soft rubber covering of the hose.

CLAMPING A NOZZLE ONTO A HOSE by means of wire and the special tool designed and built by one of Joanna's employees.

Case 47

Bi-Coil Drawing Frames Save Space

DOUBLING ends of sliver in a single can also reduces work loads and conserves cans.

AT WAMSUTTA Mills, the main Card Room (No. 6 Mill) has been completely equipped with Whitin bi-coil equipment for over a year. This includes 24 new Model J combers and 9 breaker and 9 finisher Model P2E draw frames.

Very satisfactory results have been experienced from these new machines. One advantage of the bi-coil feature is general, by which the coilers on the combers and draw frames lay two slivers side by side into 14-inch cans. By rotating the platform underneath the can instead of the can itself, the two slivers are not twisted around each other, but remain as separate

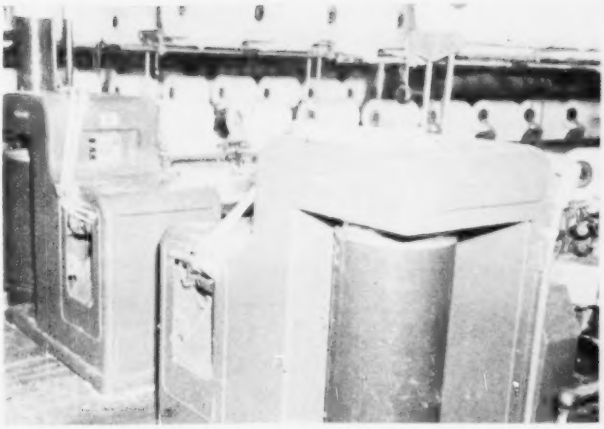
It's no time to guess—about Quality
Cling to the tried and true, in Ball Bearings too. New Departure not only makes them of unsurpassed quality but builds in *predictable performance* under known conditions. Consult a New Departure engineer while your design is in the blueprint stage.
Nothing Rolls Like a Ball...
NEW DEPARTURE
BALL BEARINGS
NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT
155

strands that pull apart easily.

The advantage is the saving in floor space in putting two slivers in the same can. This saving produces a chain reaction of further savings. Quality has been improved by shortening the distance of drag (and stretch) to the back row of cans on the drawing and superdraft roving frames. Instead of four rows of cans behind each, there are now only two rows.

This, in turn, has allowed for increased workloads; whereas previously an operator tended 24 deliveries of drawing sliver, she now tends 48 and still doffs only 24 cans. Bringing the back row of cans much closer to the draw box of the draw frame or slubber allows 14-inch cans to be used instead of 12-inch cans. The larger cans hold 22 pounds of sliver compared with about 12 pounds in the smaller cans.

The bi-coil system, together with the other advantages of these new machines, has allowed Wamsutta to get a 120% production increase on the combers over the former combers; to go from an 80% drawing efficiency to a 90% efficiency; to go from an 85% combing efficiency to an overall average of 96% (with many operators realizing over 98% for an entire week tending six combers); and to get much more even sliver, roving, and yarn.



TWO ENDS OF SLIVER are coiled in a single can at the comber, first element of the Whitin bi-coil system installed at Wamsutta.

Case 48

Fans Reduce Stops Caused by Lint on Body Knitters

HEAVY card board, used in the cutting room for pattern paper, is employed to make fan blades which are screwed onto the top of the stop motion head on body knitting machines at E-Z Mills, Cartersville, Ga. The fans reduce 60% of trouble with lint accumulating in the stop motions. They may be employed only on revolving head machines.

Only a small amount of air movement is necessary to blow the lint away from the stop motion. The knitters like the fans because their machines have less down time and get more production. The stop motion does not have to be blown off often on machines so equipped.

A small piece of metal is employed on each blade as a reinforcement at the hub end, and screws are applied through the metal to secure the reinforcement. The paper is coated with shellac to

FANS mounted on the stop motion head reduce 60% of the trouble with lint accumulating on the stop motions in one modern body knit goods plant.

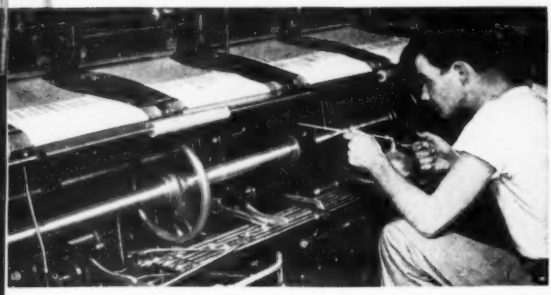
COMPLETE SCOURABILITY and the superior adhesiveness of Sunotex Machine Oil ended a jinx for this felt maker. Sunotex held spotting to the absolute minimum and replaced an "adhesive" oil which had to be applied three times as often. Sunotex Machine Oil is now used—with never a trace of harmful staining—on every loom in the mill, including this 500-incher.

LUBRICATION JINX IN 3 MILLS ENDED BY SUNOTEX MACHINE OIL

One mill had been plagued with excessive oil costs, another with numerous spots that would not scour out, a third with rusting. By switching to Sunotex Machine Oil, a new general-purpose textile oil for bearings, cams, slides and gears, each one of these mills ended its troubles.

Sunotex Machine Oil is an ideal lubricant for almost all friction points of textile equipment. It is exceptionally adhesive, scours out completely from all fabrics, assures absolute rust protection, withstands extreme pressures, simplifies inventories, makes possible longer undyed fabric storage.

To find out how many of your machines this oil can protect, write to Department TJ-10 for lubrication data sheets and samples.



NO RUST forms to interfere with the delicately adjusted mechanisms of this hosiery machine now that Sunotex lubricates it. The mill's production of perfect nylons, greatly reduced by the oils formerly used, has returned to rated capacity.

50% LESS OIL is needed to lubricate this knitting machine because Sunotex adheres so much better. Unlike the former product, this Sun oil does not gum up the system. Costly week-end clean-ups have been eliminated.

SUN INDUSTRIAL PRODUCTS

SUN OIL COMPANY, PHILADELPHIA 3, PA. • SUN OIL COMPANY, LTD., TORONTO AND MONTREAL

SUNOCO®

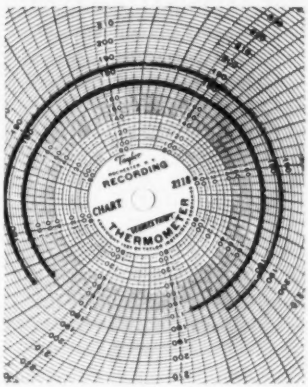
present a slick finish and prevent lint from sticking to the fan blades. Either two, three, or four blades may be used. Four blades are helpful on a 16-feed machine because the stop motion is larger.

Case 49

Steam Traps Assure Even Temperature in Slasher Cylinders

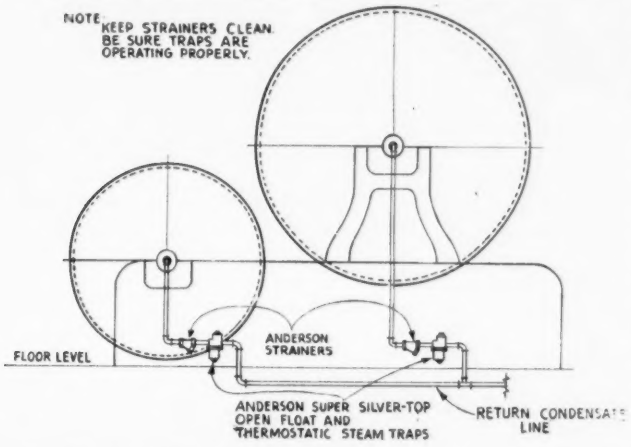
IN MANY textile mills great difficulty is experienced in trying to keep the slasher cylinders at a constant temperature. This is especially true in rayon mills where the fibers may be damaged if the temperature is too high.

One big problem in trying to maintain even temperatures is that of air elimination. Air is injected into the steam-heated cylinders to reduce the temperature, and the air must be removed rapidly to make room for more steam. When the slashers are stopped to repair the warp, the steam is shut off automatically and vented at the same time. This permits air to be drawn into the cylinders as the steam condenses, and a large quantity must be handled when the slasher is again started up.



TEMPERATURE RECORDING CHART shows the even temperatures attained after the combination traps were installed.

TYPICAL ARRANGEMENT FOR TRAPPING two-cylinder slasher. Strainers are placed in front of the traps to keep the traps as clean as possible to assure continued satisfactory performance.


NOTE KEEP STRAINERS CLEAN. BE SURE TRAPS ARE OPERATING PROPERLY.
FLOOR LEVEL
ANDERSON STRAINERS
ANDERSON SUPER SILVER-TOP OPEN FLOAT AND THERMOSTATIC STEAM TRAPS
RETURN CONDENSATE LINE

One progressive southern textile mill solved the problem of air elimination by replacing their old traps and by-passes with combination open float and thermostatic Super-Silvertop steam traps, made by the V. D. Anderson Company, Cleveland, Ohio. These traps have an inverted bucket and handle the steam condensate in the usual manner. Furthermore, the thermostatic element in the top will handle large quantities of air before the steam reaches the trap. This function is automatically controlled by the temperature difference between the air and steam.

CASE HISTORY REPORTS

Case 50

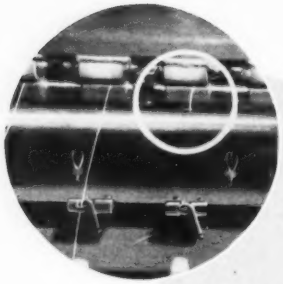
Adequate Hand Tools Save Time

AMONG the frequently overlooked factors which affect production, quality, safety, costs, and efficiency, is the hand tool equipment of the fixers in the mill.

Edward Farmer, instructor, and H. S. Richardson, assistant superintendent, Slater Manufacturing Co., Inc., division of J. P. Stevens & Co., Inc., Slater, S. C., realized sometime ago that good tools were needed for good job performance. A Snap-On tools textile representative was called in, and a basic set of tools was agreed on. Since that time the mill has had a higher rate of production, better quality, and lower cost of operation, according to Mr. Richardson.

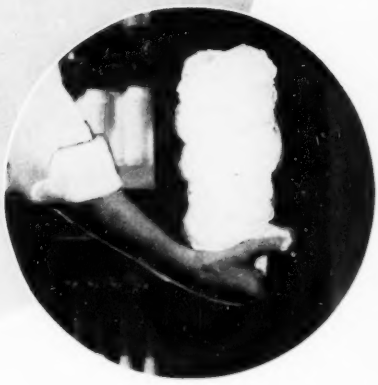
Surveys have disclosed that, on an average, the hand tool equipment of fixers is about 60% of minimum requirements. Department of Labor statistics have shown recently a rise of approximately 40% in industrial accidents, attributable to the use of worn out and improper hand tools.

In a medium size mill, the cumulative loss of man hours in one year may cost from $2,000 to



It Goes in Here

...and Comes out Here



When an end breaks, the pneumatic suction of Pneumafil picks it up and conveys it to the waste collector—clean, opened, fibres unbroken, and ready for reuse without waste machine processing. Many Pneumafil owners report that these savings on waste alone have paid for their Pneumafil installations in less than one year.

Pneumafil does far more than this. The same air suction removes dirt, lint, slubs, and gouts from the yarn, and eliminates any chance of spinning doublings. By reducing ends down and making it easier to piece an end, and by eliminating balling up of sides, Pneumafil enables spinners to tend two more sides with less work than before. Pneumafil permits higher frame speeds, cuts down-time and produces better yarn at lower costs.

Over 8,000,000 spindles are already Pneumafil equipped and 2,000,000 more will be so equipped in 1952. Sooner or later you will install Pneumafil on spinning frames, because it is the best investment a spinner can make. Get full information on Pneumafil today.

Cotton
Wool
Worsted
Rayon
Jute
Asbestos
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Blends

South American and Continental Europe: Luwa, S.A., Zurich, Switzerland.
Canada: Ian M. Haldane & Co., P. O. Box 54, London, Canada.
Mexico: Compania De Industria Y, Comercio, S.A., Mexico, D.F., Mexico.

PNEUMAFIL®

CORPORATION • **2516 Wilkinson Blvd., Charlotte, N. C.**
Sales Offices: Boston — Philadelphia — Atlanta

$3,000, according to surveys. The loss is greater than the total cost of equipping each fixer in the mill with minimum basic tools of good quality. The time loss is attributed to fixers having to go about the mill to borrow the proper tools; meanwhile there is an increase in the "shut-down" time of the machines which need repair or adjustment.

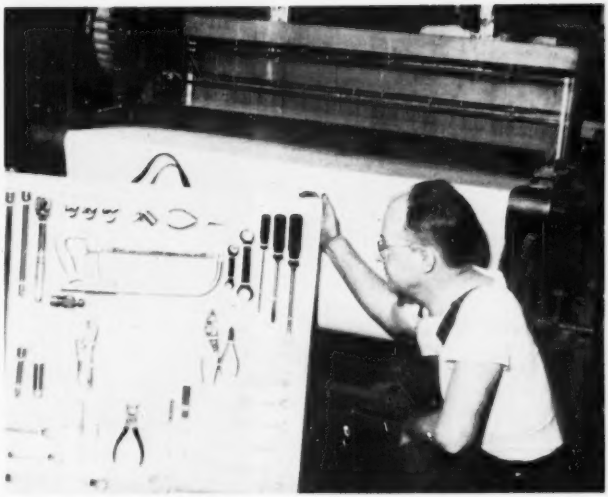
Positive benefits derived from proper hand tool equipment reflect themselves in the following factors:

(1) Efficiency: Increased due to less lost time and shorter shut-down periods.

(2) Costs: Decreased by longer machine life, fewer replacement parts, and increased operating time of machines.

(3) Safety: Accident rates show a downward curve due to fewer skinned, bruised, or broken hands. Use of well designed tools prevents many accidents.

(4) Quality: Experience indicates a decrease in seconds. Better performance is indicated from a quality standpoint.



LOOM FIXER at Slater Manufacturing Co. displays what is considered in his plant to be a basic set of hand tools.

(5) Production: Rises as a result of the advantages derived.

Case 51

Electric Machine Flash-Cures Resin Treated Fabrics

Provides accurate heat control, conserves floor space, practically no maintenance, prevents damage to goods.

TO MEET the demand for cured resin finishes and permanent water-repellency requiring curing, Rainbow Valley Dye Works, Inc., Nasonville, R. I., recently installed an electric curing range that flash-cures resin finishes in seconds. The equipment was supplied by Sill Industries, New York, N. Y.

The unit was selected after management had carefully considered mill requirements. The glass fiber super-heater units:

(1) Saved space up to 80%.

(2) Had accuracy of heat control of plus or minus five degrees.

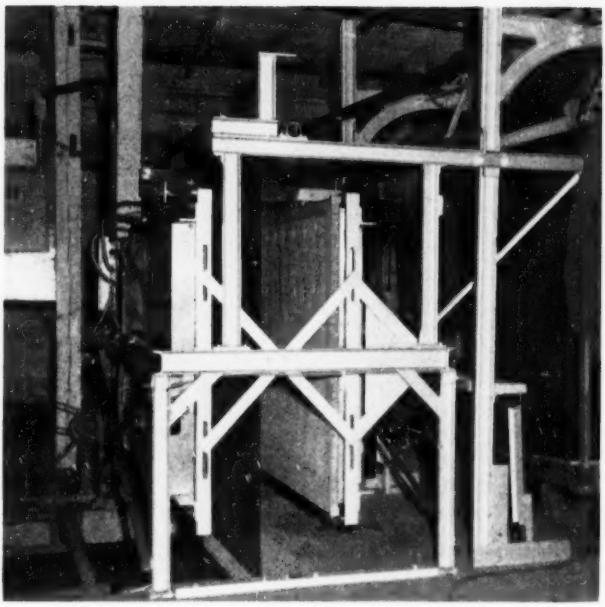
(3) Required practically no maintenance.

(4) Carried a small amount of cloth in the unit at one time; therefore there was little likelihood that large amounts of goods could be damaged, should the unit fail mechanically.

Other favorable factors were found in that the shades of dyestuffs were not impaired by flash curing. There was less tendering of goods due to the quick cure time.

Rainbow Valley Dye Works, Inc., are commission dyers and finishers of heavy piece goods. Most of the goods are blends for suitings. Their goods range in width from 38 inches to 62 inches, and from six ounces per yard to 18 ounces per yard. For greater efficiency in running the narrow widths the super-heater unit was especially fabricated to run either the narrow goods or the wide goods. Only the center section of the panels is employed in running narrow goods. When wide goods are cured, the entire panel is in operation, thereby eliminating electric power waste. Crease resistant tests on cured goods show full crease resistance and high resin retention with pleasant hand. Goods having full crease resistance plus permanent water repellency are also excellent.

Most of the goods processed through the glass fiber super-heaters have been 50% viscose rayon and 50% acetate suitings. Other types have been 80% viscose rayon, 20% wool; 60% viscose



THE ELECTRIC HEAT PANELS are approximately one inch from each side of the cloth while goods are passing through the machine.

rayon, 40% wool spun blends. Blends containing Orlon and nylon also have been satisfactorily processed.

Rainbow Valley Dye Works reports that skilled operators are not required for the machine. Ordinary oiling of the machine and periodic cleaning are all the maintenance required.

While goods are passing through the machine, the electric heat panels are approximately one inch away from the cloth on each side. Should the cloth flow be stopped for any reason, the electric panels with their black radiant heat are automatically and immediately retracted from the cloth. The safety factor prevents over-curing or scorching and is accomplished by a compressed air cylinder actuated by a solenoid valve.

Case 52

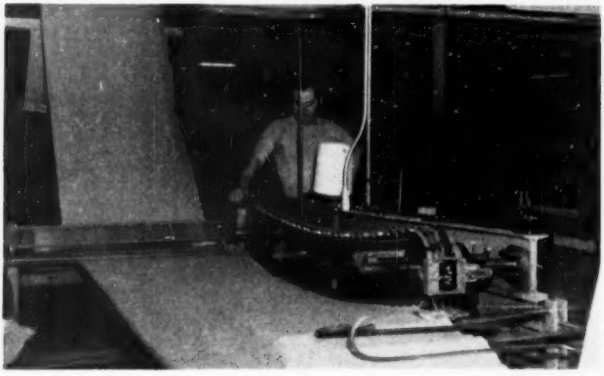
Automatic Tacker for Wool Finishing Saves Labor, Increases Production

WOOLEN AND WORSTED finishing has made great strides in recent years. But the tacking operation, in which cloth is doubled for easier processing through the finishing plant, didn't go anywhere. It marked time until Bachmann Uxbridge Worsted Corporation did something about it.

The result is an automatic tacker that takes the drudgery out of tacking. In doing so, it introduces a new degree of precision and a level of production never obtained by earlier hand feeding methods.

Durably constructed and designed for continuous operation, the tacker has halved the workload for this job at Uxbridge. From beginning to end of the tacking operation, manual labor has been eliminated leaving the operator free to service the machine or handle cloth.

The automatic tacker folds cloth so that selvages are exactly aligned. A selvage detector guides the cloth unerringly onto a continuous pin chain which transports it to the sewing head. The stitched fabric is pulled through by a pair of drive rolls and is then plaited.



AUTOMATIC TACKER frees operator to service device or handle cloth. High precision and increased production are other advantages.

Acetate colors

for every need

A.A.P. was the first successful U. S. producer of dyes designed specifically for acetate fibres, and its constant stress on quality has made and kept AMACELS the top-ranking favorites in this field. ***New, improved*** AMACELS provide a popular range of colors for dyeing acetate fibres of every type. Listed below are a few of the reasons so many leading acetate dyers rate these colors **tops** for quality and reliability.

Amacels*

for . . .

EXCELLENT FASTNESS to light, gas fading, sublimation, decatizing.

"PLUS" ADVANTAGES of simplified application—consistent shade purity—good "pile on"—level dyeing.

ADAPTABILITY—for *dyeing*—box or jig—Acetate yarn—Nylon hosiery; also suitable for *printing*, screen or machine.

For full information on AMACELS, along with data pertinent to your individual problems, consult our nearest branch. Our technicians will be happy to arrange a trial run in your plant.

50 Union Square, New York, N. Y.
Plant: Lock Haven, Pa.
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AMERICAN ANILINE PRODUCTS, INC.

She's a great dancer—

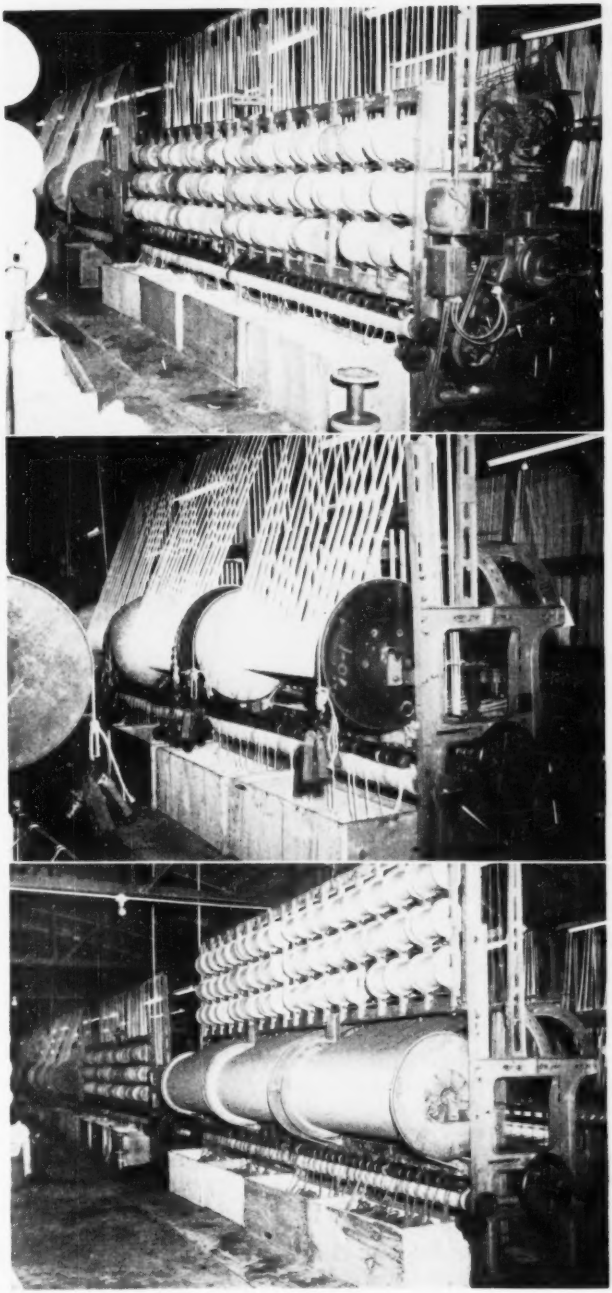
Anna Pavlowa danced into the hearts of ballet-lovers throughout Europe and America in the early 1900's with breathtaking dance creations, the best known of which were "Dance of a Swan", "Butterflies", and "Autumn Bacchanal."

BUT how does she compare with Pavlova? . . . In everything we do, we make comparisons . . . In Full-Fashioned Knitting, the one standard for comparison is the 30-section "Reading" Machine with a production of 14 to 16 dozen pairs of superior quality stockings in 8 hours. 51-gauge, 60-gauge.

TEXTILE MACHINE WORKS • READING, PENNA.

Case 53

Standard Width Beams Used on Narrow Fabric Looms



Combination warp feed utilizing both standard and miniature beams provides flexibility.

RECENTLY, there has been a trend toward the use of standard, 64-in. beams on narrow fabric looms, replacing the miniature beams, or small warps, with 7-inch heads and 9-inch widths.

Though the use of these small warps, held on creels at the back

Small warps only ⟶

of the loom, offered considerable flexibility in that warp ends of different count or color could be fed into each tape or ribbon being woven, this advantage was counteracted by the definite disadvantage of short runs. On a light weight zipper tape, for example, the yarn on these short warps would run out in about a week. Furthermore, there are a num-

Standard beams only ⟶

ber of narrow fabric mills, such as Sullivan-Southern, Inc., in York, S. C., where the major part of production is concentrated on tape of plain construction, and no variation in warp count or color is required.

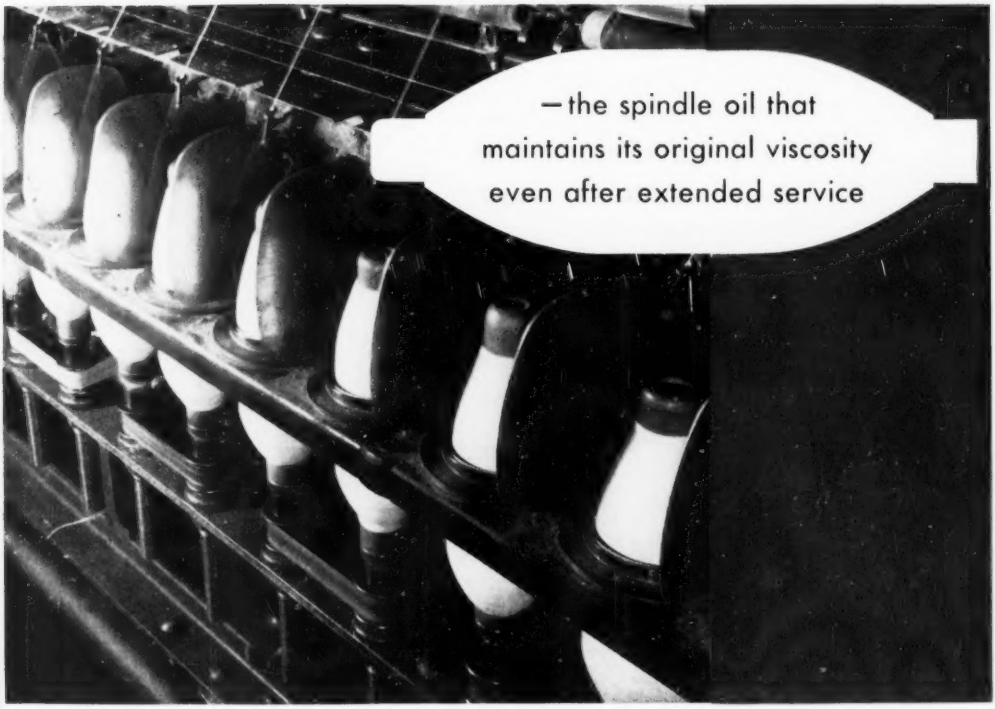
James Ramere, superintendent of Sullivan-Southern's York plant, has been changing his looms to standard width beams, three beams to a loom. These beams run a full month before tying-in is necessary, and both labor and down time are reduced.

Not long ago, an order came in for a tape for the Army which had a construction consisting of

Beams and small warps ⟶

89 warp ends for face and back and an additional 20 ends woven as binders. Since these binder ends are woven into the tape in such

Keep power consumption low with Gulfspin



Dirt, water, and oxygen act to thicken ordinary spindle oils, appreciably increasing their viscosity during normal spinning room service. Because of this higher viscosity, an increase in frictional resistance occurs and power consumption is increased proportionately. Result: power costs that are higher than necessary.

But this is not the case in spinning rooms where Gulfspin is the spindle lubricant. Gulfspin does not undergo any appreciable increase in viscosity, even after extended service. Thus substantial savings in power costs are possible with this outstanding oil.

Gulfspin has many other characteristics which make it effective for spindle lubrication: It is not only resistant to the formation of sludge, but also prevents sludge from depositing on spindle shafts and bolsters—thus it keeps spindles extra clean. It reduces wear because of excellent oiliness characteristics, and helps effectively to protect spindle parts against rust.

See for yourself on your frames that this new spindle oil is better in every way. Write, wire, or phone your nearest Gulf office and ask a Gulf Lubrication Engineer to call.

Gulf Oil Corporation · Gulf Refining Company
Gulf Building, Pittsburgh 30, Pennsylvania

GULF SERVES INDUSTRY

a manner that they have 10 per cent more contraction than face and back, this looked like a job which would have to be done on looms equipped with small warps.

Mr. Ramere, however, came upon a solution to the problem which gives his looms the flexibility required and still requires tying-in only once a month.

Three standard, 64-in. width beams are used to furnish the warp ends for the back and face of the tape. Each beam has 1424 ends and feeds 89 ends to each space on the 48-shuttle looms. Above the beams a back creel was fastened in place, and the binder ends taken from small warps on this creel. Forty-eight small warps are used, one for each space, and each warp carries 20 ends. With this small number of ends, enough yardage can be wound on these small warps so that they, too run almost a month.

This combination arrangement permits enough flexibility to run this special Army tape, in which warp runs off at one rate for face and back and about 10 per cent faster for binder yarn. Yet tying-in is required only one fourth as often as it would have been if only small warps had been used.

CASE HISTORY REPORTS

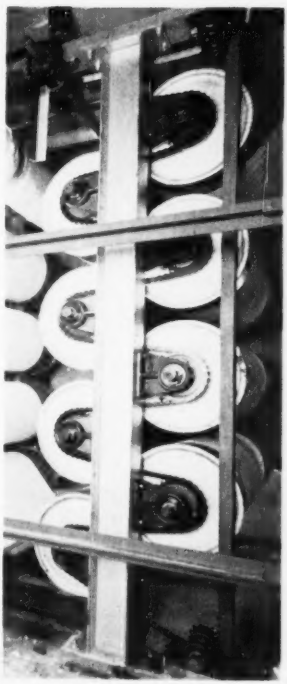
Case 54

Positive Drive on Dry Cans Assures Low Operating Cost

A LARGE Indiana textile mill employs positive drive and free rolling dry cans. The steam heated cans are 25 x 60-in. cloth-drying rolls. Link-Belt self-aligning ball bearings and RC-100 precision steel roller chain drives operate over cut-tooth sprocket wheels to assure the free rolling and positive drive action.

The mill reports that the vertical arrangement of dry cans increases production by assuring faster and more efficient drying in that the rolls are evenly driven through continuous single chain drive. Lower drying costs, less loss of time, and considerably reduced maintenance costs are evident.

The drive shafts of all 25 dry cans in the installation turn in ball bearing pedestal blocks. Pedestal blocks are equipped with asbestos inner seal and stainless steel outer seal ring because of the high temperature and steam condensation conditions of operation. Silicone synthetic grease provides protection from lubricant breakdown and contamination. Self-aligning seals hold in the lubricant and keep out dirt and moisture.



DRIVE SHAFTS of 25 dry cans in the installation turn in ball bearing pedestal blocks.

Case 55

Fork Trucks Cut Handling Time 75%

MORE EFFECTIVE USE of existing storage space was made possible with the fork trucks, which permit tiering of the heavy bales.

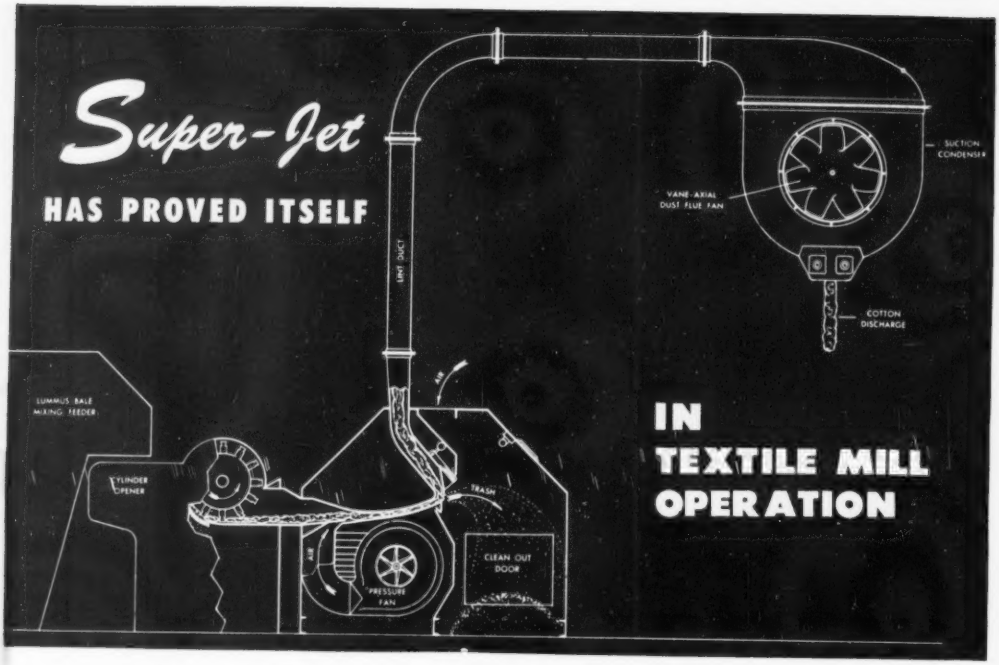
TWO FORK TRUCKS save a textile mill in the New England area as much as 32 manhours per day in warehousing baled wool.

The electric trucks replaced two-wheel hand trucks which formerly had been used to handle a weekly average of 400,000 pounds of wool. Powered fork trucks were secured to gain the benefits of a machine that would both haul and lift material; the hand trucks could be used for hauling only.

Incoming material at the mill consists of 1000-lb bales of South American wool and bags of noils weighing about 150 pounds each. The wool is delivered to the mill by highway trucks and unloaded by two Baker fork trucks. The material is hauled 350 feet to a storage area where it is tiered. The use of fork trucks to handle the wool permitted the mill to cut its handling crew from eight men to two men. The trucks are also used to deliver the bales from storage to elevators which take them to the second floor sorting room.

Super-Jet

HAS PROVED ITSELF



IN TEXTILE MILL OPERATION

THREE seasons in cotton gins, a full year in textile mills, have proven the soundness of Super-Jet, the heart of the Aldrich-Lummus cotton cleaning system.

Using air, instead of mechanical means, Super-Jet takes the cotton from the opening line, gently strips out neps, motes, stems, trash . . . even long grass. It has no moving parts. It is the result of 82 years of Lummus cotton-handling engineering experience.

With increasing spinning problems, rising from mechanical picking and other causes the textile industry will welcome this proven new system.

Made by **LUMMUS COTTON GIN CO.**
Columbus, Ga.
and
ALDRICH MACHINE WORKS
Greenwood, S. C.

Sold and Installed by **AldricH MachinE** Greenwood **WorkS** South Carolina

ALDRICH-LUMMUS CLEANING SYSTEM

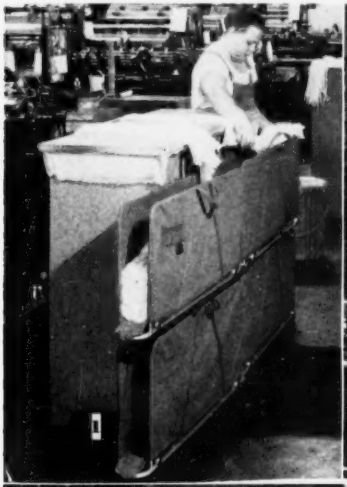
Case 56

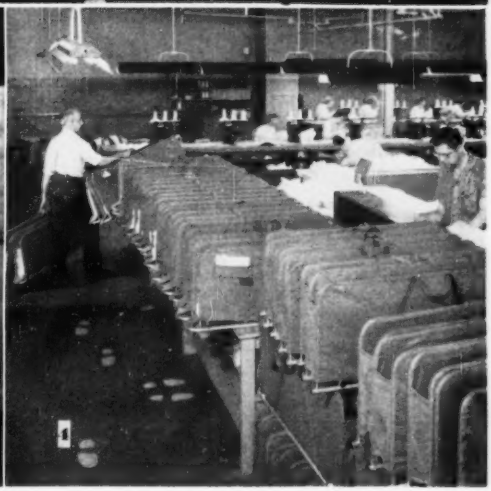
Faster Hosiery Handling, Fewer Snags with Protective Trays

FASHION Hosiery Mills, Inc., Boyertown, Pa., has developed a simplified, continuous handling procedure for hosiery in process. Utilizing Dandux hosiery trays manufactured by C. R. Daniels, Inc., the procedure is controlled by a central traffic department. Earl G. Geiger, plant manager, states that now the operation is faster and snags due to handling have been reduced to a minimum, thereby warranting the installation of the trays.

The accompanying photos tell the story.

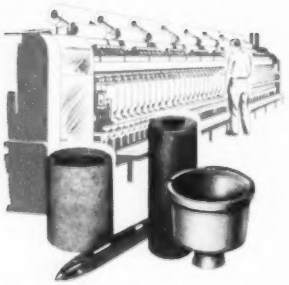
Knitters fill the stacked trays, a dozen at a time (**Photo 1**). Then two trays at a time (20 dozen or more) are carried to the steam box or seaming department and stacked where they will be handy to the seamer operator (**Photo 2**). Operator at right in this photo is placing a tray of hosiery at her machine for seaming. Note that there are two trays of hosiery at





micarta is basic!

In vital places in the textile industry



TEXTILE INDUSTRY

Bobbins, shuttles, spools and lap rolls are typical of MICARTA products which are vital elements in textile production. Its tough, light, long-wearing qualities offer infinite possibilities in the growing textile industry.

MICARTA® helps keep key machines productive. It is a basic material . . . a versatile plastic which outlasts metal and wood in many punishing applications. Bobbins, shuttles, spools and lap rolls are only a few of the many MICARTA products paying their way in your industry.

MICARTA safeguards yarns and fabrics. It won't chip or splinter. It wears evenly and smoothly, absorbs shock and vibration, resists heat and cold.

This lighter-than-aluminum material can be machined, formed or molded easier and more economically than metal. Protect your vital applications with MICARTA. Westinghouse Electric Corporation, MICARTA Division, Trafford, Pennsylvania. J-06448-A

each machine so that operator can work from one to the other; thus only one dozen is out of the protective tray at one time. Operative at extreme left is placing a tray of seamed hosiery for removal to the examining department.

In the examining department **(Photo 3)** operators remove one dozen stockings at a time from the trays, examine them, and place them in boxes for shipment to the finishing plant. Trays of hosiery awaiting inspection may be seen at the left behind the operators.

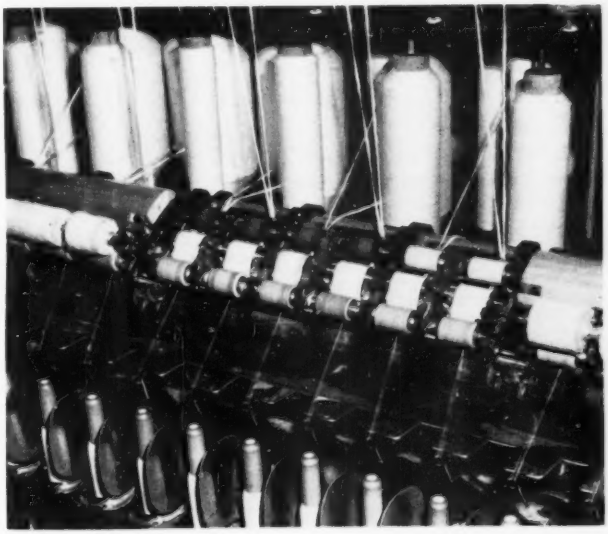
When trays have been emptied by the examiners, they are returned to the traffic department **(Photo 4)** where they are stored (right foreground) until needed again by the knitters. Note trays of hosiery awaiting seaming on the table in the center of the photo. Traffic between departments is regulated from this point.

Case 57

High Draft and Even Yarn with Converted Spinning

LONG DRAFT spinning frames at Adelaide Mills, Anniston, Ala., have been converted to H & B Casablancas Hi-Draft spinning utilizing the latest double belt system. Satisfactory drafts in excess of 15 or 16 were not obtained on the old long draft four-roll arrangement.

The new Casablancas equipment is currently drafting from 25 to 33, and the ends down per 1000 spindles per hour have been cut from 40 to approximately 23 to 25 ends. The mill finds it is getting smoother, rounder, and more even yarns on the new Casablancas double belt system. Yarn breaking strength has increased from 10 to 15 per cent, although the same cotton and much coarser hank roving are used.



BETTER FIBER CONTROL is provided by the new double-belt drafting arrangement shown here.

According to experience at Adelaide Mills, the spinning changeover has practically eliminated cockled yarn and gouts. Also, the new drafting arrangement provides much better fiber control in that the effects of pieceings are minimized.

The Adelaide Mills spin 8s to 20s quality carded yarns for knitted outerwear, underwear, and hosiery. When the old system of long draft spinning was in use, it was necessary to process 1.30 to 2.40 hank double roving. Now .80 to 1.30 hank double roving is used on the Hi-Draft system, thereby eliminating two 10 x 5 Hi-Draft slubbers and four 8 x 4 Hi-Draft slubbers. The return on the investment varies in that many changes are made in yarn numbers with a resulting change in hank rovings in the creels. However savings have been considerable, and overall results have been excellent to date.

Case 58

Fulling Mill Drives End Cloth Damage

ABOUT TWO YEARS ago, the management of Glen Woolen Mills, Inc., Plant No. 2, at Norwich, Conn., decided to modernize a battery of fulling mills which, being driven from a lineshaft on the floor above by means of flat belts, were equipped with tension-oper-

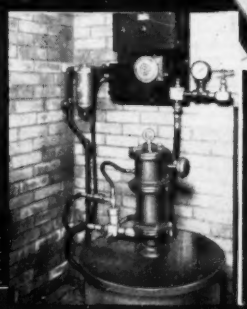
Lincoln
CENTRALIZED LUBRICATION

SUPPLANTS OIL CANS AT ALEXANDER SMITH, INC., AND SAVES $1,742 PER LOOM ANNUALLY

In the past 6 years, Alexander Smith, Inc., has installed Lincoln Centralized Lubrication Systems on more than 80 production machines and today are planning to put it on 27 more. In each case the installation more than paid for itself in increased production, reduced maintenance costs and consumption of lubricants. On one Axminster loom, alone, savings in labor, materials, and production downtime paid for the installation in less than a year.

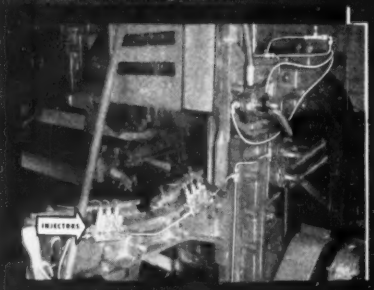
Whiten Twister Frame

Lincoln Centralized Lubrication System as installed on a Whiten Twister Frame at Alexander Smith, Inc., increased the life of traveler rings by 320 operating hours.



Each battery of 6 looms has its own time clock controlled power operated pump mounted on the original container. Lubricant is pumped direct from original refinery container to the bearing, eliminating contamination from dirt and grit.

Lincoln Centromatic injectors installed on 15-ft. Compton and Knowles Carpet Loom automatically deliver lubricant in predetermined, measured shots to 228 bearing surfaces.



9 SAVINGS EFFECTED BY ALEXANDER SMITH, INC.

through installing

Lincoln CENTRALIZED LUBRICATION

1. Increased operating speeds on older machines by 12½%
2. Carpet waste due to soilage reduced 25%
3. Power consumption reduced on older looms by about 20%
4. Life of wear-parts extended by 30%
5. Machine life increased by 15%
6. Machine downtime decreased—productive time increased
7. Lubricant cost reduced—no waste grease
8. Labor cost reduced—fewer men doing lubrication
9. Positive lubrication of all bearings assured through the application of the right lubricant, in the right quantity, at the right time.

Lincoln's Lubrication System specialists will work with you and recommend the time and money-saving **CENTRALIZED LUBRICATION** System best suited to your new or present equipment.

WRITE FOR YOUR FREE COPY OF
NEW CATALOG
giving complete information on Lincoln Centralized Lubricating Systems

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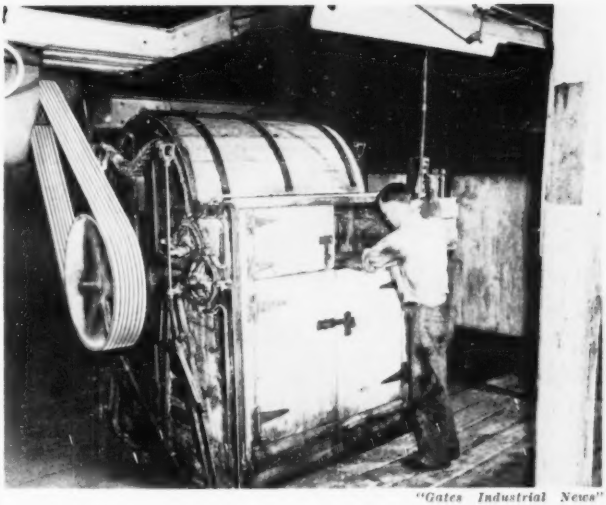
LINCOLN ENGINEERING CO., 5702-15 Natural Bridge Ave., St. Louis 20, Mo.



"Gates Industrial News"

MODERNIZED FULLING MILL at Glen Woolen Mills in Norwich, Conn. The close-coupled V-belt drive with ceiling-mounted motor is shown at the left. Operator's right hand is on motor control which is arranged for line start and "plug" stops.

ated safety clutches that were intended to stop the mills if the cloth became snagged or jammed.

Because of the inertia of the machines and the slow, uncertain operation of the clutches, there was always a considerable amount of over-run before the units could be brought to a stop. As a result, several yards of cloth were destroyed. Furthermore, the speeds of the fulling mills were not constant because of belt slippage due to the humid surrounding atmosphere. Consequently, quality and production suffered.

Study of the problem by a Gates Rubber Co. engineer lead to the installation of drives like the one shown in the accompanying photograph. Close-coupled Vulco Rope drives were installed from induction motors mounted on the ceiling to grooved sheaves on the fulling mills. The motors were arranged for line start and "plug" stops to give almost instantaneous starting and stopping of the machines, thus protecting the cloth from damage and eliminating the production losses formerly experienced.

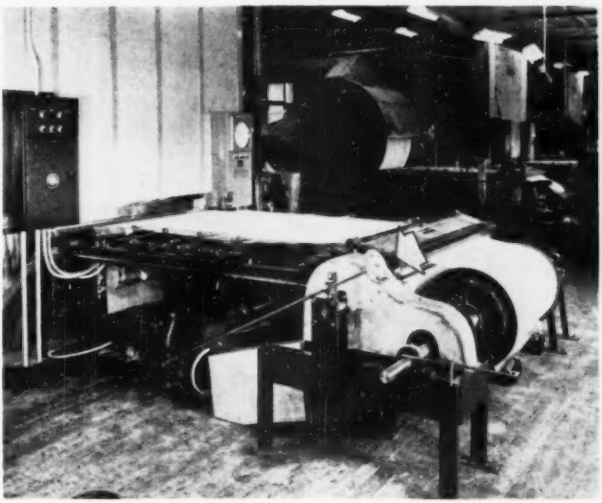
Case 59

New Slasher Drives Improve Production and Quality

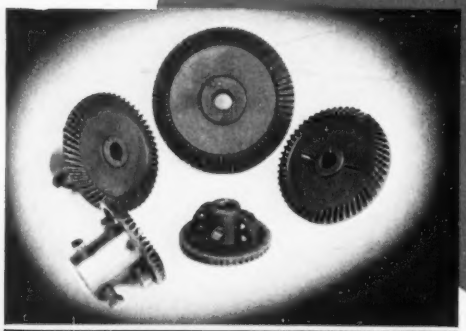
INCREASED production and decreased expenditures have been realized at the Joanna (S. C.) Cotton Mills Company, since five slashers were equipped with Reeves Servo-Control slasher drives. Joanna Mills can now produce more yarn on five slashers than previously on eight.

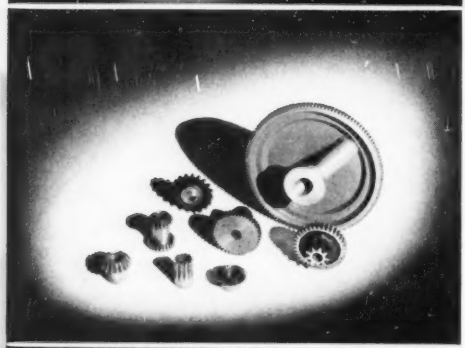
Valuable space has been conserved by eliminating three slashers, and operating speed has been increased from 30 yards per minute to as high as 105 yards per minute with fewer ends down, automatic tension control, and improved yarn quality.

The main drive is provided with



TENSION CONTROL handwheel location is indicated by arrow in this photo of the head end of one of the modernized slashers in the Joanna Cotton Mills. The drive fits compactly under the frame.





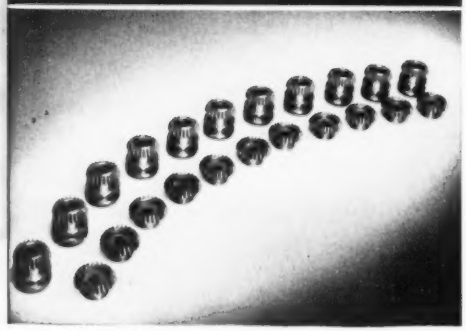


Plate and Coupling Gears
Card Coiler Gears
Bobbin and Spindle Gears

PRECISION MADE

Gear manufacture is not a simple foundry casting problem. Demands for long life—superior performance—efficient service, call for precise engineering in the process.

Gears by Southern States give longer, smoother, more efficient operation because they fit accurately, mesh easily, reduce chatter and vibration. This superior performance of Southern States machine-molded cast-tooth gears and precision-machined cut-tooth gears is achieved through modern metallurgical and foundry practices to assure uniformity of specifications. Accurate machining and rigid inspection assure maximum operating efficiency. Southern States products are guaranteed by an experience gained from thirty years of service to many of the South's leading textile mills.

Southern States Bobbin and Spindle gears, Plate and Coupling gears, and Card Coiler gears to fit all frames. Submit samples, drawings or specifications for quotations.

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Matthews Equipment Co. **Providence, R. I.**	**C. H. Kennington** **Charlotte, N. C.**	**Textile Parts & Machine Co.** **Gastonia, N. C.**	

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a 15:1 speed variation, controlled by an electrical push-button station for stop, creep, or run. The stretch control drive mounted at the size box is equipped with a vernier control for speed adjustments.

The Reeves complete slasher drive includes the main drive, tension control beam drive, and stretch control drive. Tension is controlled automatically through complete build-up of the loom beam. Control stations are located at six different positions around the slasher.

Another textile company in Greenville, South Carolina, found that when running 30s single cotton, 200 additional yards of yarn were put on a beam in that constant tension control was employed. The additional 200 yards would run one of their looms an extra 24 hours.

Case 60

Conveyors Save Manpower and Space, Speed Up Towel Shipments

PRIOR to installation of Logan conveyors at Lowell Bleachery South, all production and movement of towels was handled in large box trucks. Considerable repetition of effort was required in transporting and handling from one sewing operation to another, and after the sewing operations, transporting to storage, from storage to wrapping, then to shipping room on floor below for placement into shipping containers.

Sewing room, storage bin area, packing room, and finally shipping room were always so congested with trucks that it was difficult to move materials from point to point or operation to operation. This method required use of excessive manpower to load and unload trucks several times before towels were finally processed, wrapped, and packaged for shipment.

The company has conveyorized all handling of towels from first sewing operation through final packaging operation. Towels now "flow" through all operations without delay. Sewing room now is free of congestion and no labor is required to load and unload towels. Towels are placed on labeling machine tables by operators. When all sewing, labeling, and folding operations are finished, towels are tied or bundled by tying machines moving along the conveyors. Then bundles travel to storage area where they are taken from conveyors and placed into storage. From storage bins complete lots are placed on conveyors for delivery at wrapping tables. From wrapping, the travel is via conveyors to packing area on floor below, where products are packaged for shipment.

Conveyorizing their operations has produced savings of manpower and space, promoted greater output of shipments, resulting in savings more than justifying the investment in a conveyor system. Existing operations are now straight line flow, permitting fewer operators to produce greater volume.

CONVEYORS are now utilized to handle towels from first sewing operation through final packaging operation at Lowell Bleachery South, and the savings more than justify the investment.

Case 61

Prevents Bleeding of Naphthol Prints

At a large bleachery and print works, the tendency of naphthol prints to bleed onto white grounds during soaping was effectively blocked by the application of Telkanite M, a special dispersing agent made by the Dexter Chemical Corporation.

In this application, Telkanite M was added to a salt or base print at approximately two ounces per gallon. In addition to fixing the print, it was found that the agent promoted removal of the thickener and reduced mark-off blotches at the nip rolls of the soaper.

Telkanite M is a clear water soluble oil that has high stability and dispersing properties in acid medium. Because of these proper-

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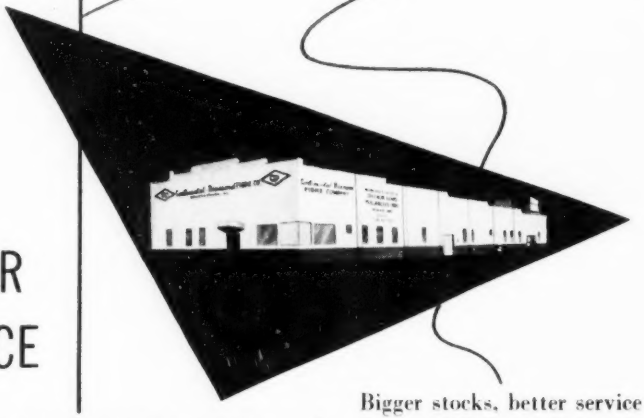

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CELORON—for silent gears!

A light, resilient plastic, easily cut into gears that stay silent and absorb vibration. Our f-a-s-t service, from big stocks of blanks, saves your time and money.

ROVING CANS—really smooth!

The famous C-D-F seamless kind. No top sway. Surfaces will not crack, chip, or soften. C-D-F Spartanburg has the answer to your materials handling problem.

LOOM PARTS—all non-metallic!

Fibre bushings, washers, binder pins. *Fibre* cloth roll bearing blocks. Knife guides. Use C-D-F fibre for low-cost, longer life.

DILECTO—a versatile, tough laminate!

A stiff plastic that resists water and wear, is unaffected by steam and dyes. Easy to machine. Widely used in bobbins.

CDF

Continental-Diamond Fibre Company

GENERAL OFFICES: NEWARK 73, DELAWARE

ties, it is ideal for pasting up and dispersing of bases. It is unaffected by diazotizing and promotes clear, stable solutions of bases for long periods.

The product has also been used to promote easier scouring of excess color from the fabric and to reduce the tendency to crock by its addition to the base or salt solution for naphthol dyeing of piece goods. This application (up to 1% Telkanite M in the pad liquor) also tends to disperse the unfixed color lake.

Case 62

Humidifier System Increases Wool Weave Room Efficiency 10%

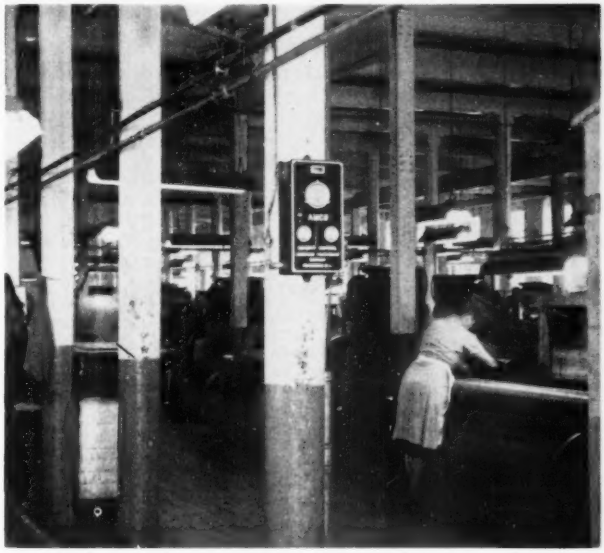
A NEW humidification system has been installed throughout one progressive southern woolen mill. American Moistening Company's units were employed, and the installation has been in satisfactory operation for about seven months.

The biggest improvement noted after the installation was put into operation was an increase of 8-10 per cent in weaving efficiency. In carding and spinning the work has been more uniform due to evenly maintained humidity. Temperature in the working areas is lower, and employees are much more comfortable.

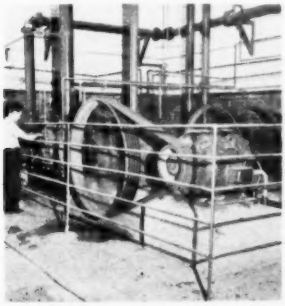
The maximum temperature was formerly 90-93 F; now the maximum is 80-83 F. Part of the improvement in efficiency is attributed to better employee morale, and it is now possible to obtain better ventilation without excessive loss of humidity.

A new Worthington air compressor was installed to supply the humidifier system. The old humidifier system was obsolete, manually controlled, overloaded, and did not maintain constant conditions. The new system is entirely automatic. The old compressor was overloaded in that it supplied air to the humidification system and also supplied compressed air for cleaning and general use. Now the old compressor is used solely for cleaning operations.

The new compressor is capable of supplying 30 per cent more air than present production demands so that some future expansion may be taken care of with the existing equipment.



AIR COMPRESSOR installation was supplied by Worthington. The new compressor furnishes air to the humidifier system only.



Case 63

Electronic Pick Counter Saves Time

A LARGE New England cotton mill has found that the Sjostrom automatic pick counter alleviates eye-strain and saves much time. Although this laboratory instrument has certain limitations, it counts the ends and picks per inch of most plain weaves

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October 31, 1951

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We are highly pleased with the results from Sealatex, and consider it one of the best investments we ever made. Every Textile Plant, regardless of type, size and kind of floors, should seal their floors with Sealatex, it means so much; preservation of the floors; control of dust; prevents penetration of grease into floor; reduced damage to products being produced, etc.

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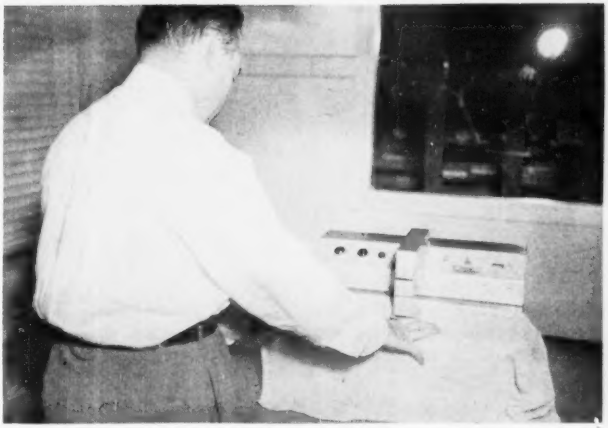
made from single yarns woven up to one hundred per inch with accuracy and speed.

A very narrow beam of light travels two inches in about thirty seconds. The cloth is placed above this beam and an arm containing a photocell rests on top of the cloth. Each cross thread in the fabric breaks or diminishes the beam sufficiently for the photocell and amplifier to actuate a counter. Each horizontal thread the beam "sees" during its two-inch traverse is registered, and the sley or picks per inch are found by dividing the counter reading by two.

When the switch is thrown again, the beam travels back in the opposite direction and, if the cloth is unchanged, will almost always duplicate the picks per inch reading within one pick.

Since the instrument counts the picks or sley automatically, the operator can be occupied elsewhere in the laboratory while the test is being made—the machine stops itself after the two-inch traverse. Thus many more counts can be made by this automatic method, providing the construction of the cloth under test is within the capabilities of the instrument.



"ELECTRIC EYE" provides rapid, automatic means of determining pick counts for a wide range of fabrics. The electronic instrument shown here produces accurate results in a matter of seconds.

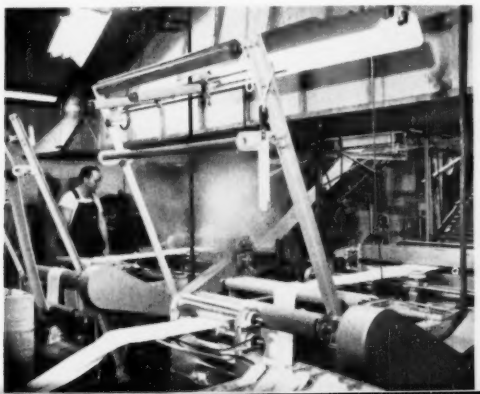
This rapid technique permits other worthwhile applications. The sley all the way across a piece of cloth can be checked for variation, or the picks in every loom can be checked in a routine manner.

Case 64

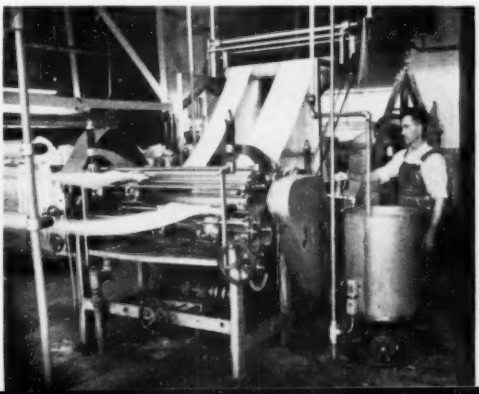
Knit Goods Stabilizing Machines Simplify Quality Control

SEVERAL Tube-Tex machines in operation at E-Z Mills, Inc., are used to aid in stabilizing fabric dimensions prior to the cutting operations. Manufactured by H. W. Butterworth & Sons Co., one of the machines is used in the dyehouse to extract and to fold the knit goods after they leave the bleaching operation. Pressure rolls on the Tube-Tex machine are employed to extract moisture from

FEED ARRANGEMENT relieves tension on the knitted fabric and plays an important part in stabilizing dimensions of the cloth. Machine in dyehouse receives cloth from bleach tub, applies softener, and folds it on trucks ready for next operation.



CLOTH WIDTH is held to within ¼" plus or minus tolerance to insure correct dimensions for the cutting operations. Tube-Tex machines in the napper room receive cloth from the dryer and keep it relaxed to set the width.



the cloth, which is folded by the machine immediately after extracting; whereas the cloth was formerly extracted and moved to another machine for wet folding. The two operations, extracting and wet folding, are now combined into one operation.

The present arrangement in the dyehouse saves time and improves quality in that cloth shrinkage is reduced and cloth dimensions are stabilized. The machine in the dyehouse has been in operation for about eight months with good results. The cloth stabilizing operation is attributed to relieving the tension on the fabric through application of a special feeding mechanism which does not stretch the fabric. Cloth is taken from open beck or bleach tub, placed in trucks, and is run directly through the Tube-Tex machine which folds the cloth onto trucks for delivery to the dryer.

Three Tube-Tex machines in the napper room receive cloth from the dryer and keep it relaxed to set the width and hold it to within ¼" plus or minus tolerance so the cloth will be the correct width for the cutting room (see accompanying illustrations).

Case 65

Inspection Speed for Wide Goods Doubled with Tandem Machines

Individual drive, operated by photoelectric cell arrangement, is provided for each of the operators on the machine.

SINCE the installation of Curtis & Marble tandem inspection machines for wide goods a few years ago, the Wamsutta Mills of New Bedford have found that their production per inspector has doubled.

Previously, two girls worked side by side on a single table. With this new arrangement, the girls work on separate tables, the work travels from the cloth roll, up the first table, onto a temporary storage pan, down the second table, and onto the second roll. Thus, each girl inspects half the width of these wide goods without having to wait for the other girl.

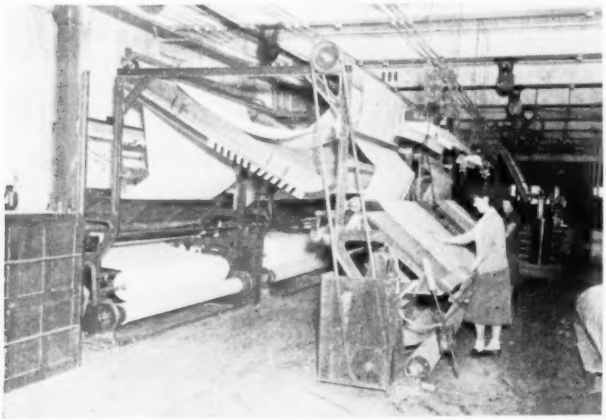
One of the features of these tables is the individual drive for each of the operators. These are operated when the inspector merely breaks the beam of light, running the full width under her table, with a slight motion of her knee. Breaking the beam actuates a G. E. photoelectric starter.

This has been found to be a considerably more rapid way of starting and stopping than the hand or foot operated levers or bars formerly used. Also, each girl can reverse the direction of travel over her table by a simple reversing lever, enabling her to go back to a defect which she may have let go by too far.

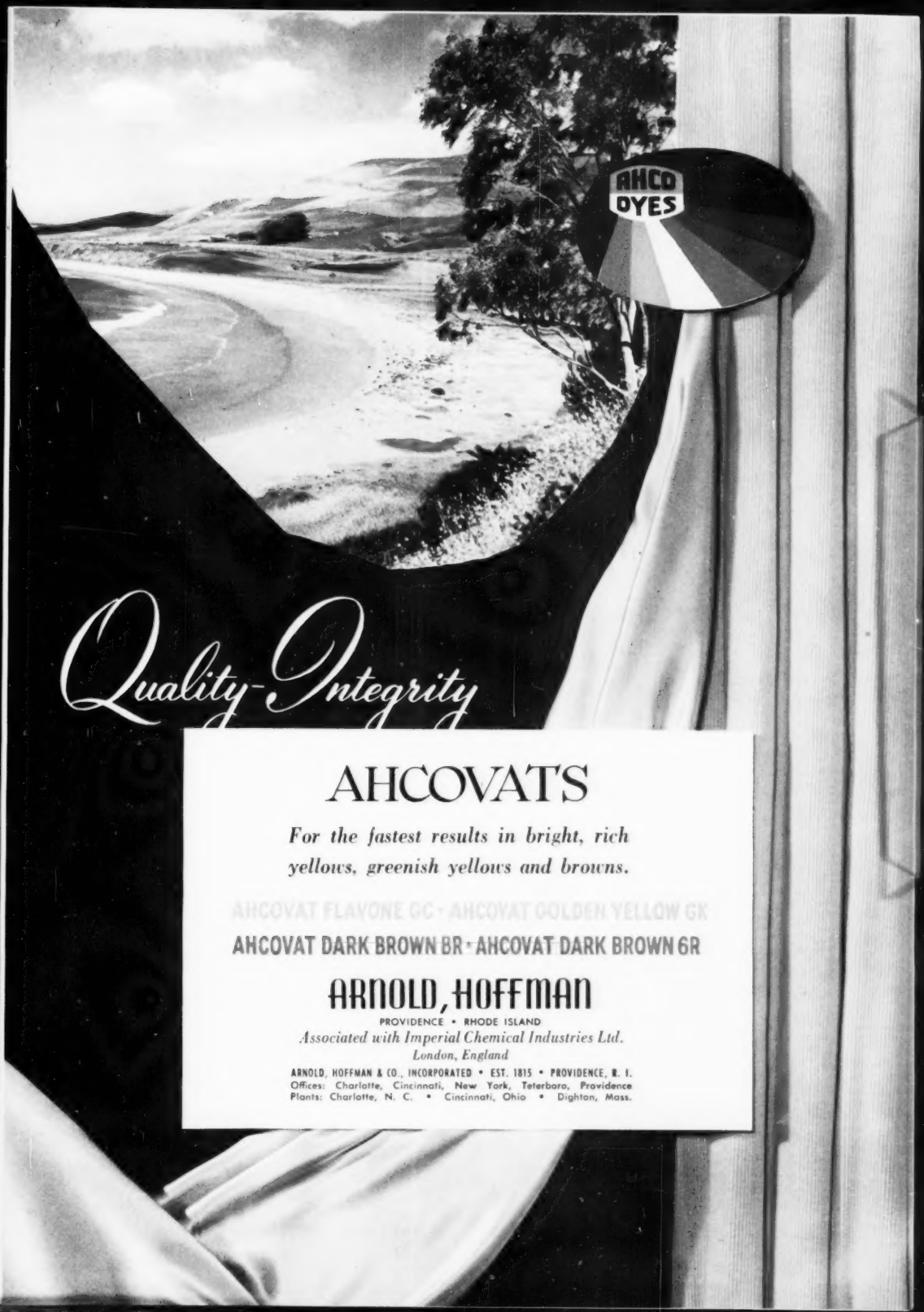
Above these inspection tables, Wamsutta is now using Sunray Rip-L-Light Aqua fluorescent tubes. The girls find them to be easier on the eyes and less tiring, besides showing up the defects better without shadows. They are especially good on the second shift when there is no daylight present.

For its narrow goods, Wamsutta is using a set of Mt. Hope rolls on its Curtis & Marble trimmer and finds them very successful in eliminating slack selvages.

MOTORIZED INSPECTION tables, allowing simultaneous face and back examination of cloth, have speeded up wide goods processing at Wamsutta Mills.



INTERCEPTION of light beam directed at a photocell unit provides simple start-stop operation on Wamsutta's inspection tables. Operatives use knee to block light, leaving hands free for inspection and mending.



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Assures Uniformity!

Installation of a Modern Tower Slasher assures uniformity of product in your warp-sizing operation.

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"Uniform quality control" is built into the Tower Slasher. Production speeds limited only by yarn strength. Now you can produce better warps, faster and at reduced costs.

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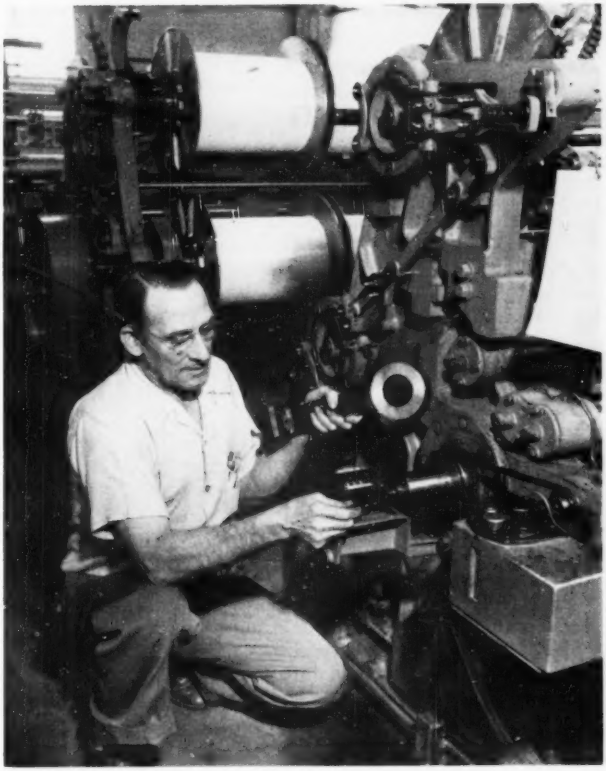
Case 66

Camshaft Lock Saves Time on Tricot Machine Adjustment

A CAMSHAFT locking device for use on late model Reiner tricot machines saves time and the possibility of errors in setting cams. As a rule the cams are not disturbed or adjusted; however in some instances it is necessary to change the cams for making certain fabrics — for instance, in changing to fine fabric from a coarse fabric. Sometimes an adjustment may be necessary to relieve pressure at certain points, such as the presser bar when needles begin to wear.

When the cams are moved they will be properly synchronized if the device is employed to lock the shaft into position. The camshaft lock was designed and made by a mechanic at Stylewise Mills, Inc., Carrollton, Ga.

Extreme care is necessary when using the locking device in that any adjustment attempted could produce undesirable results. If the cams are maladjusted or improperly synchronized the machine may be "thrown out of time." At Stylewise, every effort is made to maintain and adjust the machines according to factory specifications. Although Reiner does not recommend altering machine settings and the mill tries to maintain factory settings, occasionally it may become necessary to reset cams, and the camshaft lock was designed to fulfill an emergency need (see accompanying illustration).



CAMSHAFT LOCK may be fastened to the shaft and machine frame at any accessible position. When the lock is in position on the shaft, the end opposite the shaft must be made so that it may be securely fastened to a substantial member of the frame. The lock shown here may be fastened to the shaft by adjusting set screws which hold the shaft end of the lock in place on the shaft. The device shown is not completed; however it does indicate how the finished lock may be applied.

Case 67

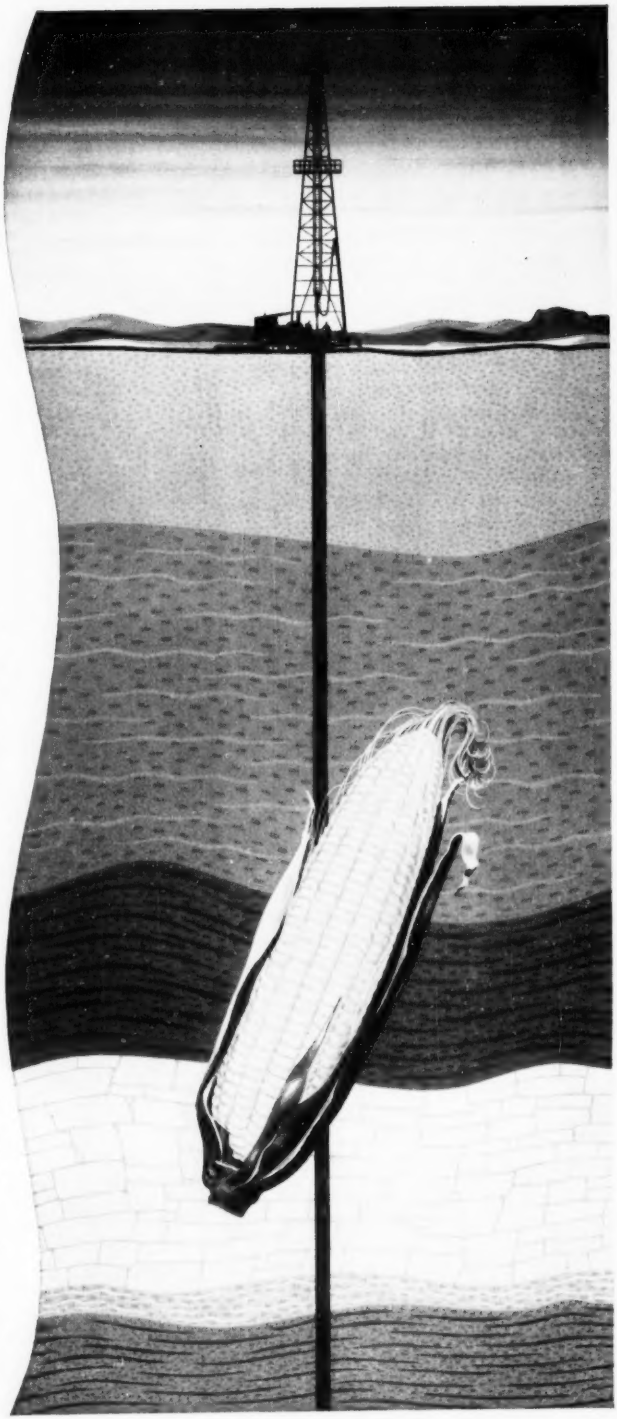
Stronger Union of Lay End Plate and Picker Stick Guide

EXPERIENCE at Joanna Cotton Mills, Joanna, S. C., is that the conventional method for attaching the picker stick guide to the lay end plate may be improved. The constant rocking action of the lay and picker stick puts considerable strain on the two pieces at the point of union, and occasionally the lay end plate breaks at the hole which receives the joining bolt.

When the break occurs, it is necessary to replace the lay end plate with a new one, which costs approximately $2.15. It then takes about two hours of a loom fixer's time to replace, realign, and level.

One of the operatives thought of

What's corn doing "deep in the heart of Texas"?



Research discovered that drilling for oil could be expedited by the use of a binding agent made of a product of corn. This firmed up the side walls . . . also aided in the early flow of sludge. "Black gold" speeded by yellow corn! This is but one of the numerous examples of how continuous basic research in corn helps American industry . . . helps you.

Corn products in textiles

In the textile field new starches, gums and dextrins provide superior formula ingredients for many textile processes. New techniques involving the use of corn products are being developed as part of a continuing research program at Corn Products Refining Company.

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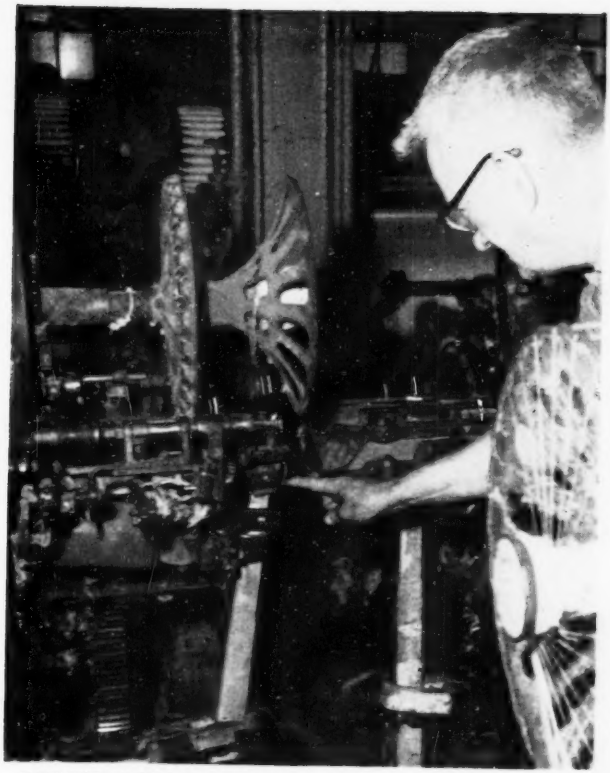


LAY END PLATE IS TAPPED to receive a $\frac{5}{8}$-in. cap screw which is used to fasten a curved piece of metal to the picker stick guide. The attachment assures a good union of the lay end plate and the guide.

an idea which improves the joint and apparently has solved the problem. Another hole is bored in the lay end plate about two inches above the point where the picker is tapped to receive a $\frac{5}{8}$-in. cap screw. The screw is used to attach a piece of metal $\frac{3}{4}$ in. wide and $\frac{1}{8}$ in. thick, the piece being curved inward at the end to fit into the slot in the picker stick guide. The attachment assures a good union of the lay end plate and the guide.

Total cost of the attachment is about 30 cents, and installation takes about 30 minutes.

Case 68

More Uniform Sliver from Cards with Improved Coiling Mechanism

A MILL in the Gastonia, N. C. area has now had enough experience with a new 15-in. coiler head on cards, manufactured by Petty Machine Company, to be able to give information on operation which has the authority of experience. The mill spins combed cotton yarns.

The large can used with this head offers the obvious advantage of permitting a longer run between doffs, since this can holds about twice as much poundage as the standard 12-in. can. However, the greatest advantage noted by the mill comes from the design by which the head lays the sliver in the can rather than from can size alone. The sliver is coiled in 6-in. spirals around the circumference of the can, leaving a 3-in. hole down the center. This eliminates the hard core which resulted from the conventional pattern made by coiler heads.

This new head on 15-in. cans is now being used in the mill on both cards and combers. An off-set design permits the head to be installed on cards without interfering with the comb box in any way, and it is equally adaptable to use on a comber. However, because of the size of the can, changes would have to be made on a drawing frame to fit the cans into the limited space originally designed for 12-in. cans.

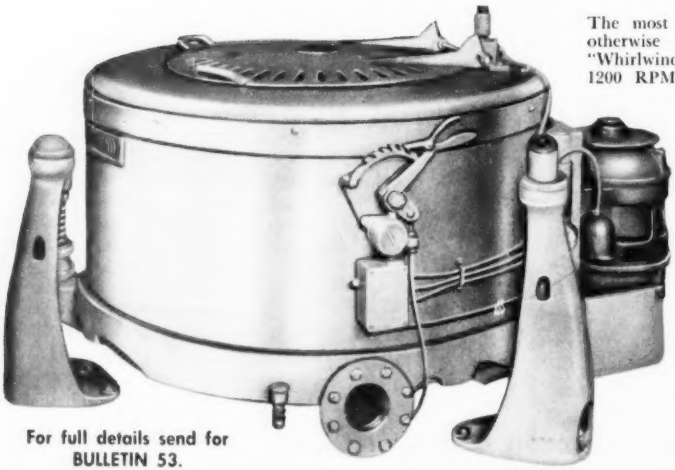
The mill noted that one of the major advantages of the equipment, resulting from the pattern of the coil in the can, is a reduction of the tendency of the sliver to pack and rub when the can is nearly full. This improves the uniformity of the sliver considerably, according to tests made at another mill, which is running spun rayon. With the type of coiler head the mill had been using, which built up the sliver with a hard core in the center, there had been a very distinct increase in variation of the sliver from bottom to top of the can. In fact, there was about twice as much variation at the top, where the sliver was rubbed and packed as at the bottom. With the new coiler heads, the variation stayed constant from top to bottom of the can.

The one objection to the can is a result of its large diameter. The first sliver into the can, as in any large can, is not coiled as nicely as that higher up where the sliver does not have so far to drop. This lack of precise coiling at the bottom makes cans hard to dump, where dumping is necessary. A solution to this is thought to be

Gentle as a Mother's Care

Fletcher "WHIRLWIND" EXTRACTOR

permits high speeds with absolute safety to machine...operator...and *all fabrics*



For full details send for BULLETIN 53.

The most delicate fabrics cannot snag or otherwise be harmed in the big, rugged "Whirlwind" Extractor. Even at speeds up to 1200 RPM which it attains with effortless acceleration, fabrics are safe, for the mirror-smooth stainless steel basket interior is entirely devoid of rivets, flanges or other projections. There are no reinforcing bands on the stainless steel basket, a feature which provides maximum drainage with reduced windage and power consumption. Great structural strength of the "Whirlwind" assures safety for both machine and operator. The permanence of safe operation is guaranteed by the absence of corrosion-inviting reinforcing members. Other "Whirlwind" features are Big Capacity, High Stability, Space-saving Compactness, Easy Accessibility for Loading and Unloading, Finger-tip Control and Automatic Hydraulic Braking.

FLETCHER WORKS

225 GLENWOOD AVE. PHILADELPHIA 40, PA. ESTABLISHED 1850

the use of false bottoms in cans, the false bottom being held up by a light spring so that it gradually settles under the weight of sliver being run in. Such cans are available, but neither of the two mills have had any experience with them.

Case 69

Moisture Control Speeds Finishing 150%

Speed of range processing print cloth increased from 50 to 150 yards per minute since electronic controls were installed.

FULTON Bag & Cotton Mills of Atlanta, Georgia, have recently put Drimeter moisture controls on a number of their machines, beginning with a range consisting of a backfill machine, gas fired tenter frame, and calender.

The range was running low count print cloth at the rate of 50 yards a minute when the control was installed.

The moisture controls were calibrated to the style of cloth by slowing the frame down enough to make certain that the cloth was bone dry at the point of delivery. Then the correct knob was set to bring the indicator to zero.

Then the frame was operated at the usual speed of 50 yards a minute. The indicator needle did not move from zero on the dial. As speed was increased gradually, the needle began to indicate a little moisture. When 5% moisture content was indicated, which produced the quality desired, the frame was running at 125 yards a minute, an increase of 150% in hourly production.

The operators of the range were instructed to increase the speed of the range and did so during the day shift. During night operation the employees were not familiar with the new controls, and speed reverted to the old rate of 50 yards a minute.

To make sure of uninterrupted high speed operation, a Fielden automatic speed controller was installed to maintain that speed. The 150% gain in production was steadily maintained.

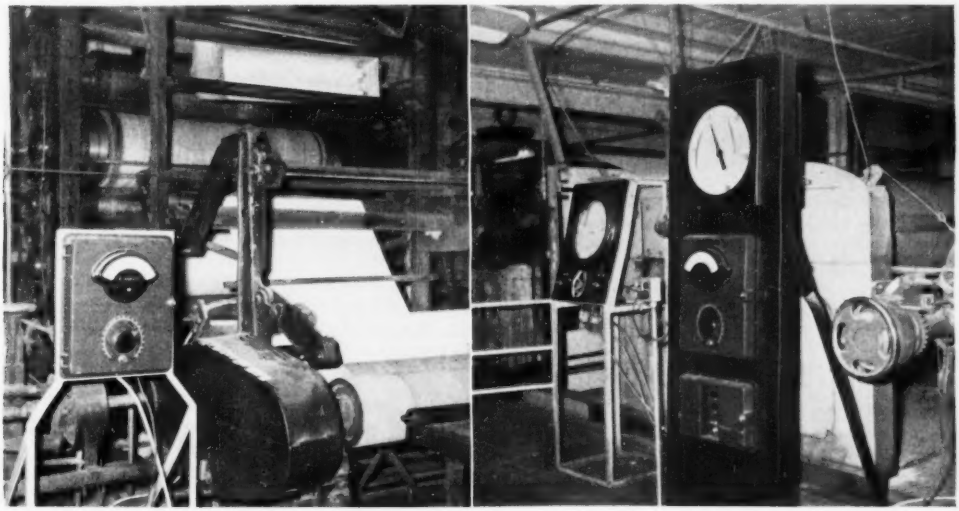
A heavier type of treated cloth was run on this same range, and speeds of around 54 yards per minute were obtained. Formerly, 40 ypm was the customary speed for the heavy treated cloth.

The dryer operator learned how to adjust the controller in a few minutes, and he was pleased to turn over the responsibility for proper drying to the instrument. More time is now available for other important phases of his work.

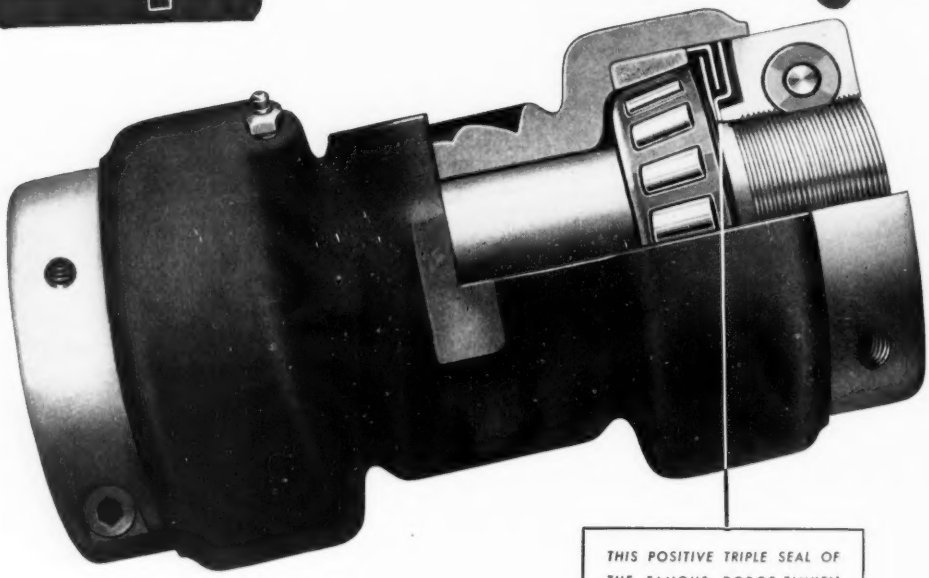
Four additional Drimeters have been installed at this mill—one for use in the slasher room to calibrate old style moisture controllers—two for use on dyeing machines—and one to check drying of adhesive in a laminating operation.

The controls, manufactured by Fielden Instrument Corp., a subsidiary of Robertshaw-Fulton Controls Co., have been tried on several other drying operations in the plant and found to be accurate in every application.

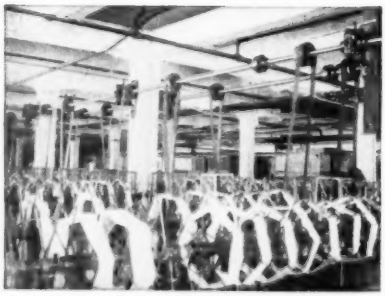
DRIMETER INSTALLATIONS at Fulton Bag and Cotton Mills. Left, moisture control on finishing range. Right, automatic speed controller.



Stops Oil Damage!



THIS POSITIVE TRIPLE SEAL OF THE FAMOUS DODGE-TIMKEN TYPE C BEARING ELIMINATES OIL DRIP...HERE IS THE IDEAL BEARING FOR TEXTILE MILL USE!



This installation of Dodge-Timken Hanger Bearings protects quality and profits. Special seals prevent oil leakage on the product, reduce "seconds." Bearings remain properly lubricated, saving labor.

IS OIL DRIP eating holes in your profits? To keep the lubricant where it belongs—*inside the bearing*—switch to Dodge-Timken. These famous bearings, noted throughout the world for quality, have proved themselves in millions of industry's toughest jobs.

The type C Dodge-Timken Bearing is especially adapted to use in the textile field. Its indestructible steel seal positively prevents lubrication leakage—definitely cuts a mill's loss from "seconds."

Available from distributors' stocks—in shaft sizes from 1-7/16" to 3-15/16". Completely assembled, factory adjusted, pre-lubricated and ready to install on the shaft for a minimum of 30,000 hours of uninterrupted service. Call your nearest Dodge Transmissioneer. Or write us for detailed bulletin.

DODGE MANUFACTURING CORPORATION
3500 Union Street • Mishawaka, Indiana

CALL A DODGE TRANSMISSIONEER. He's factory-trained to help solve your power drive problems. Look for his name under "Power Transmission Equipment" in your classified telephone directory.

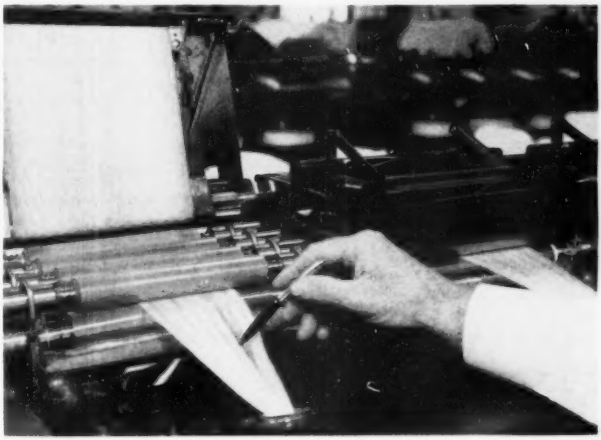
DODGE
of Mishawaka, Ind.

Case 70

Cushion Type Drawing Top Rolls Reduce Sliver Irregularities 50%

SACO-LOWELL drawing frames have been changed to four-roll drawing to accommodate two-inch staple rayon on 168 deliveries at Chicopee Manufacturing Corp., Athens Division, Athens, Ga. The top rolls are synthetic (cushion type) and were specified to provide more uniformity. The new installation reduced sliver irregularities by 50%, according to indications on the sliver tester. Spinning room performance and quality have improved considerably since the new drawing was put into operation.

490-J Armstrong roll covering was employed by Saco-Lowell to fulfill the mill specification for cushion type top rolls. According to experience at Athens, the new rolls definitely produce better quality work than the old metallic rolls, and the investment should be quickly amortized. There has been no appreciable maintenance on the new drawing, which has been in operation long enough to indicate any undesirable features.



RAYON STAPLE FIBERS are drafted and parallelized more uniformly since synthetic top rolls were installed on revamped drawing at Chicopee Manufacturing Corp. Reworked deliveries are equipped with ball bearings.

Case 71

Floor Maintenance Cost Reduced by Alternating Machine Accessories

FLOORS are kept bright by alternately dry-cleaning them with steel wool, and then burnishing them with a cylindrical polishing brush, at McCrary Hosiery Mills, Inc., Asheboro, N. C. The same Tennant floor machine is used in each operation; only the accessories are changed.

By the alternating method and technique, T. H. Redding, superintendent and general manager, indicated that McCrary has found less steel wool buffing is required and floors have a better gloss. Action of the polishing brush provides a smoother surface than when steel wool alone is used, and it can be swept more easily. Overall maintenance costs, considering results, appear to be less than before, according to Mr. Redding.

McCrary's method of alternate use of steel wool and the polishing brush is simple. For daily cleaning of their floors (protectively hardened with Tennant No. 88 floor seal), it is sufficient to use a cotton V-mop which is adjustable to desired width. But at longer intervals, when floors become soiled by heavy traffic, they are

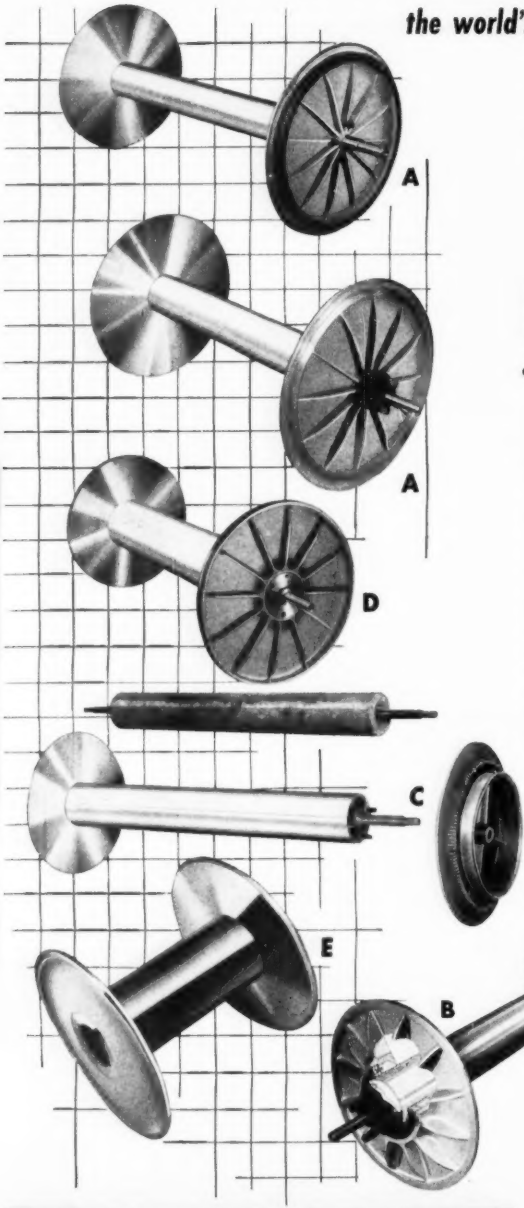
DIRT-RESISTANT GLOSS is produced by buffing-polishing technique. Operator rapidly sweeps floor with a V-mop which cleans a path 6" to 57" wide.

the world's largest producer of light metal beams

HAYES

gives you modern

beam engineering



Hayes Engineering facilities are the result of more than 17 years experience in designing and fabricating light metal products. Hayes experience in designing and fabricating, has produced textile beams that are light in weight, true-running and perfectly balanced to give you the greatest possible accuracy in weaving. Working surfaces are machined to precise limits of size and run-out and are highly polished and waxed. They are rust proof, warp proof, splinter-free and require no special maintenance. Hayes design, correct engineering and true running balance, together with the mirror-smooth surfaces which are possible by using light metals—result in a smooth high-speed operation, which produces better selvages and reduces rejects to a minimum.

Thousands of Beams are shipped each year, but demand far exceeds the supply. In fact, to make delivery of some items, more than six months are required, and in fairness to our customers, orders must be filled in the sequence they are received. We will do our best to fulfill your requirements and welcome your inquiries.

HAYES MODERN PLANT FACILITIES PRODUCE

A. Light Metal Loom Beams
B. Light Metal Adjustable Loom Beams
C. Light Metal Replacement Loom Beam Barrels
D. Light Metal Section Beams
E. Light Metal Tricot Beams

HAYES INDUSTRIES, INC.,
JACKSON, MICHIGAN

HAYES ALSO HAS die casting and machining facilities for large scale production of special light metal bobbins. Consult Hayes Engineers for modern engineering service on Light Metal Textile Beams — Write today to:
HAYES INDUSTRIES, INC., - Jackson, Michigan

EASTERN REPRESENTATIVE
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SOUTHERN REPRESENTATIVE
R. E. L. Holt Jr. & Assoc.
Greensboro, N. C.

BUFFING FLOORS alternately with steel wool, then with a polishing brush, McCrary Hosiery Mills, Inc., obtains a bright gloss at a minimum cost. Operator is using a 16-inch machine to polish floors in finish boarding department.

dry-cleaned with No. O steel wool. When the surface begins to dull again, the floor machine operator replaces the steel wool roll with a 16″ fiber brush; then rapidly polishes the floors.

The gloss provided by this technique, according to L. M. Calloway, maintenance engineer, is highly durable and resembles a well-waxed surface, yet is non-slippery. In areas of extra heavy traffic the protective seal which binds the top fibers is readily renewable without showing lap marks.

Case 72

Uniform Setting of Nylon Fabrics with Hot Air Type Machine

A HOT-AIR nylon heating setting tenter housing operating in the mill of Queen City Textile Corporation, Allentown, Pa., and developed by Proctor & Schwartz, Inc., Philadelphia, Pa., is providing a uniformity in setting which has not been accomplished with any previous setting method, according to the mill's management.

The complete range of equipment in operation at Queen City Textile Corp. consists of a dryer, setting unit, and a cooling unit. However, in mills where a suitable tenter is already in use the same results can be accomplished by adding merely the setting and cooling units.

The equipment was designed to give a uniform setting across the width and length of the piece after the boil-off in order that uniform dyeing might take place after the setting operation. Dyed warp-knit fabrics have been set in the heat-setter satisfactorily with no shading across the length or width.

Setting requirements for scoured 168″ material may vary anywhere from setting 84″ to 110″ wide after trimming. The machine can set the 110″ material with a residual shrinkage of no greater than 1%. Material set 84″ wide will show about 0% shrinkage when subjected to standard wash tests.

The basic capacity of the standard unit is at the rate of 30 yards per minute when handling 15 to 40 denier tricot fabrics; heavy double-knit simplex fabrics, about 18 ypm.

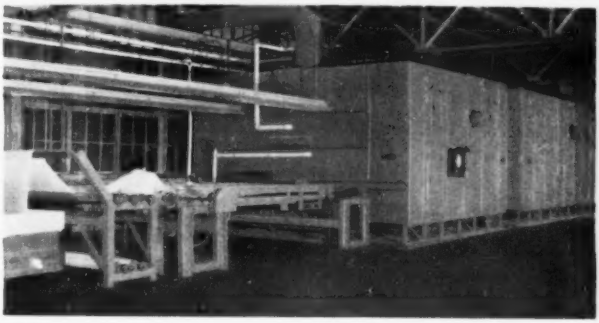
Nylon lace and net are also set in these units, as well as resin curing. The whole range may be used for drying acetate and viscose material at high capacities when not being used for nylon setting.

In commenting on the installation at Queen City, William C. Winkler, superintendent, said, "We are highly pleased with the results obtained from the gas heated nylon heat setting equipment installed in our plant early in 1950.

"The use of this equipment has enabled us to obtain, for the first time, a uniform setting of the fabric, which, in our opinion, could not be accomplished with the methods previously employed for the setting of nylon tricot fabrics.

"The simplicity of operation of this equipment together with its low maintenance cost, reflects, we feel, production costs as low or lower than can be obtained by any other process of heat setting."

HEAT SETTING EQUIPMENT supplied by Proctor & Schwartz and in operation at Queen City Textile Corporation, Allentown, Pa.



Celanese

OFFERS FABRIC MILLS
AND MANUFACTURERS
A GREAT
MERCHANDISING
OPPORTUNITY

The new Federal Trade Commission rulings, effective February 9, require the identification of cellulose acetate fibers as "acetate" and viscose process fibers as "rayon" in all garments and articles made of these fibers.

In support of these rulings, Celanese Corporation of America has prepared the most extensive identification, educational and promotional programs in textile history.

IDENTIFICATION Through the newly formed Acetate Identification Bureau, Celanese is prepared to offer, without cost, several simple, flexible, properly worded and attractive hang tags. These are available for both all-acetate and acetate-combination fabrics and can include the imprint of the mill, manufacturer or retailer. These tags need not use Celanese trademarks.

EDUCATION Celanese provides a field force of women trained and equipped to work with:

Retail Stores — in giving sales personnel factual information on fibers, their performance and care.

Women's Clubs — in telling the consumer how she can buy more effectively through knowledge of fiber information now being brought to her.

Schools and Colleges — in stressing the importance of fiber identification and knowledge in home economics courses.

These speakers will have slide films, basic booklets on Acetate, visual training aids, Question and Answer folders as well as a variety of other educational material.

PROMOTION Celanese has scheduled a pre-tested advertising campaign running monthly in *Saturday Evening Post*, *Life*, *Woman's Home Companion* and *Good Housekeeping*.

A top rated, full-hour *network television show* carrying the Acetate story to a huge national audience. It not only carries general Acetate commercials but provides for merchandise tie-ups with local department stores.

Celanese schedules in the *leading fashion, home and pattern books* are continuing on specific merchandise, and they, too, underscore the special characteristics of Acetate.

A consistent campaign in *leading trade papers* continues to carry the story of what Acetate means to the industry and how it should be identified and sold. Mills, cutters and retailers will be informed in this way of promotional materials available and specific tie-in possibilities.

Extensive *editorial coverage* of the new FTC rulings, in all magazines and newspapers read by women, has been assured.

With so much firepower at your disposal, your obligation to identify Acetate can easily become one of the most effective selling tools you've ever used to move merchandise. Why not write now for full details of this program? Address: ACETATE IDENTIFICATION BUREAU, Celanese Corporation of America, 180 Madison Avenue, New York 16, N.Y.

USE THIS SERVICE

AIB

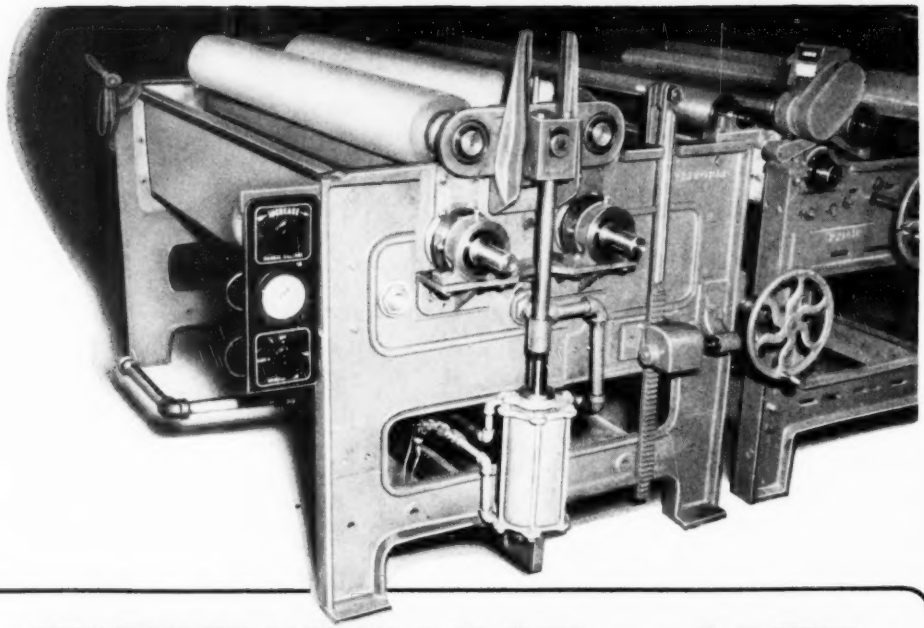
ACETATE IDENTIFICATION BUREAU

USE THIS TAG

Celanese

CORPORATION OF AMERICA

180 Madison Avenue, New York 16, N. Y.



PNEUMATIC LOAD and LIFT
puts the RIGHT pressure on Squeeze Rolls

Size penetration is accurate and easily adjusted with the WPF & M Pneumatic Load and Lift device.

The pressure control gauge and knob on the control panel can be set to any predetermined load without guess work. Change over from light to heavy sets is accomplished in seconds, without switching squeeze rolls, by increasing or decreasing pressure as required.

The WPF & M Pneumatic Lift and Load device can be installed on your present equipment without costly alterations.

Ball bearing journals are provided for squeeze roll journals for smooth, long-lasting operation.

You can reduce change-over time on your slashing equipment, eliminate the back-breaking drudgery of lifting squeeze rolls and obtain accurate size penetration time after time with the Pneumatic Load and Lift equipment.

We'll be glad to make a survey of your requirements if you desire.

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA
Textile Machines . . . To Solve Your Problems

Case 73

Cut-Off Valve Decreases Bad Starts at Slashing Operation

ELWIN ABRAMS, slasher room overseer at Joanna Cotton Mills, Joanna, S. C., has decreased bad start-ups on slashers by 75% by the use of a cut-off valve which he has installed.

Uxbridge slashers are used at Joanna, and they operate at 70 to 90 yards per minute, power being applied through Reeves drives. With this type of equipment, the speed of the yarn is controlled pneumatically, but the acceleration at start-up was so great that there were broken ends occasionally.

The installation of a valve in the air line to the controls has decreased the broken ends by making possible a much smoother start. The valve shuts off the air to the pneumatic controls so that the slasher operates at a speed of 10 to 15 yards per minute.

When the slasher is ready to doff, the air pressure is cut off. The slasher is doffed, and an empty beam is placed in the front. Then, the slasher is started—still with no air to the controls—and is run at the low speed until enough yarn is on the barrel of the beam to form a cushion. The slasher tender then opens the valve, and the slasher accelerates to full speed. The layers of yarn on the beam barrel act as a shock absorber, and prevent the breakage of ends under acceleration.

Case 74

Tubular Type Pumps Handle Variety of Fluids in Wet Processing Plant

THE PUMPING of fluids, varying from cold, heavy printing colors to hot caustic solutions for mercerizing, is one of the major problems in a wet processing plant. Not all types of pumps will meet the job requirements without too much down-time and maintenance expense.

Rock Hill Printing & Finishing Co., Rock Hill, S. C., a division of M. Lowenstein & Sons, Inc., has been using tubular type pumps on a number of different pumping jobs for several years, and it feels that this type of pump gives excellent service with a minimum of maintenance for the applications to which it has been adapted.

These pumps act through a helical rotor turning within a double threaded helical stator, the meshing helical surfaces pushing the liquid ahead with a uniform movement similar to a slow moving piston in a cylinder of infinite length. While the pumps are not designed to run dry, they are cooled and lubricated when pumping only 10% of designed capacity. This makes them excellent pumps for use on mercerizers with a cascade counter flow of caustic.

Five pumps, running at 1200

TUFFER CYLINDER CLOTH
the finest Card Clothing Foundation on the market

A Tuffer Tension Regulator and Motor Drive as used in the illustration greatly simplify the work of clothing a roll. It does a smoother job and saves much time and money.

One of the reasons our customers get such good results from TUFFER Card Clothing is because of the unique construction of the TUFFER Cylinder Cloth.

This foundation is made of four plies of specially designed fabrics carefully woven. They are bonded together with oilproof adhesive in our special way which gives you a strong foundation, yet pliable enough to promote the proper carding action of the wires when on your card.

TUFFER Cylinder Cloth was developed and patented by Howard Bros. after many years of research. A trial will convince you that it is the finest foundation available. Our complete line of foundations for card clothing includes wool face, felt face and rubber faces and specialties.

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Georgia and Gastonia, N. C. Branch: Philadelphia, Pa.

Direct Representation in Canada

A-4

. . . IT PAYS TO SPECIFY TUFFER CARD CLOTHING

rpm and designed for 60 gpm, are used on each mercerizer, the intake to each pump sucking liquid caustic out of the cloth which has just passed under a cascade of caustic solution discharged by the pump ahead. The intake design is such that the pump is sucking a mixture of caustic and air, a difficult mixture to handle. None of the rotary pumps supplied by the manufacturer of the mercerizing equipment was able to stand up to this service, but the tubular pumps have proved themselves over a two-year period.

Pumps of this same design are being used in the color room on Votators, where they have been pumping against pressures as high as 230 psi for over three years.

Further use has been found for this type of pump on a portable rig used in pumping heavy colors to strainers.

Maintenance is simple, according to the piping engineer. There are only two ball bearings on the pumps, and they are lightly greased every three months and cleaned and regreased every 18 months. Very little other maintenance has been required, the most common outage being caused by the breaking of a shear pin, which can be replaced, without removing the packing, in 15 to 20 minutes.

These tubular pumps used at Rock Hill Printing & Finishing Co., are manufactured by Robbins & Meyers, Inc., Moyno Pump Division. The decrease in down-time and the efficient operation of all the pumps in their various jobs have helped reduce costs and improve the quality of product in both printing and finishing operations.

Case 75

Better Cotton Cleaning by Air

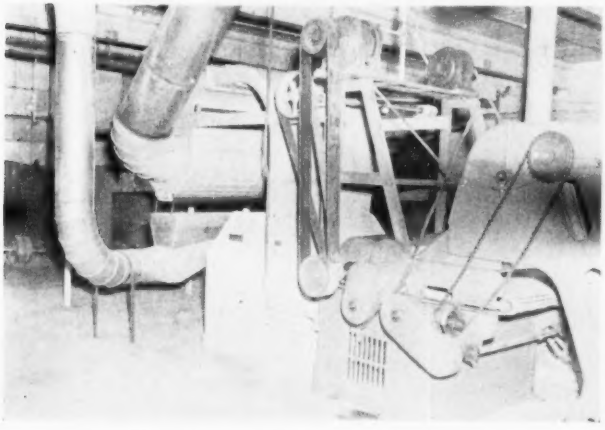
THE WAMSUTTA Mills of New Bedford, Mass., have been using a new Super-Jet cleaner, made by the Lummus Cotton Gin Co. for the Aldrich Machine Works, and find very satisfactory results in the way of cleaner cotton and yarn. This new cleaner is installed in one of the opening lines just before the cotton is blown to the pickers.

At present, it is preceded by the blending feeders, Superior cleaner, first Buckley, and second Buckley beaters. However, further experimentation may prove that one of the beaters can be eliminated.

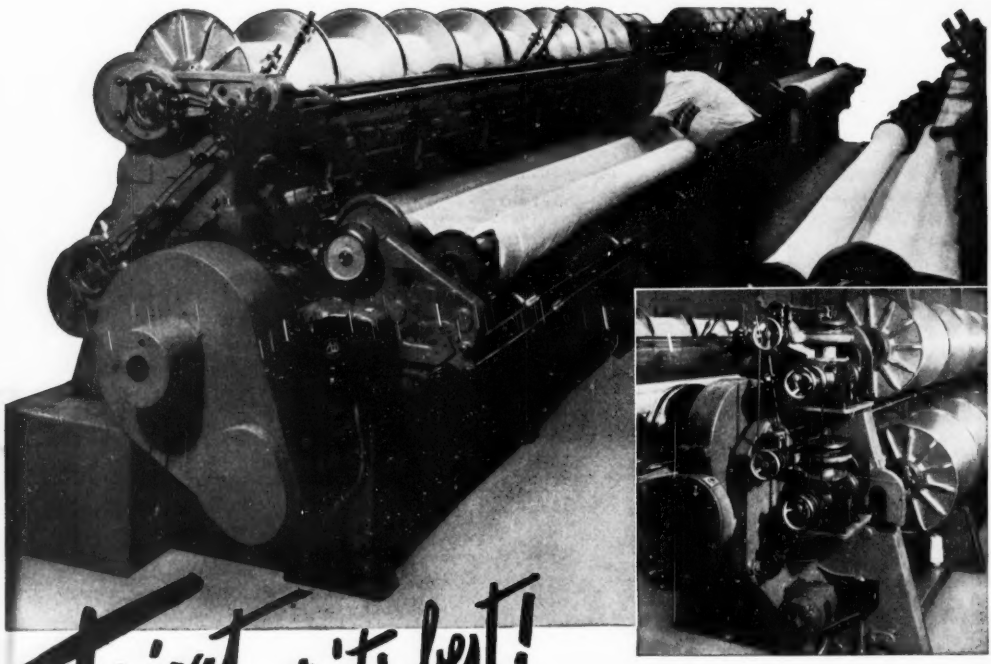
After the second Buckley downstroke beater, the cotton falls into a small picker hopper where pin conveyors carry it to another Buckley beater, the purpose of which is to deliver an even flow to the Super-Jet. A powerful fan in the Super-Jet picks up the cotton and conveys it through a neck in the duct where its velocity is increased tremendously.

At this neck there is an elbow type baffle, above which is an adjustable knife and a slot opening to the waste hopper. The heavier trash, traveling at a fast rate, fails to make the corner at the baffle and is separated by the knife, falling into the hopper. A fluorescent light and glass front on the hopper allows this action to be viewed.

This method of removing the heavier seed, mote, and leaf fragments, even from the high grades of cotton used at Wamsutta, is quite efficient. In fact, when one holds his hand in the waste hopper near the slot where the knife is, he can feel the sting of these fragments being literally thrown



SUPER-JET CLEANER installed behind beater on opening line is shown at left. Varying degrees of waste extraction can be obtained on the cleaner by adjusting the position of a lever (photo above) along a calibrated scale. Actual separation of trash and good staple can be observed through inspection windows on the machine.



Tricot at its best!

Quality control, ease, reliability and economy of operation are essentials of successful manufacture. The new Reiner Tricot Machine, in mill operation everywhere, easily meets all these requirements. Its automatic devices improve fabric quality and reduce stop and shade marks to a minimum. They assure a steady flow of flawless tricot cloth at top speed. Machine operation and care are made easier and yarn control more positive. Truly, here is *tricot at its best!*

Quality knitting is only possible with quality machines. For many years and in many mills Reiner equipment has proven to be of the superior quality class. Convince yourselves by inspecting this latest Reiner machine, in action, at the Reiner plants in Weehawken, New Jersey.

We also offer all types of Reiner Warpers and Creels — in short, warp knit equipment from cone to knitted fabric.

FEATURES

- Automatic beam let-off transmission and warp tension adjuster.
- Automatic cloth take-up.
- Electro-mechanical brake clutch with needle-down disc to reduce stop marks.
- Instantaneous cam brake action.
- Motor power increased from 3 to 5 h.p. for quick level start.
- Automatic oil feed lines throughout.
- 2-bar units can readily be changed to 3-bar units by means of split cams.
- Automatic guide bar lift with safety controls to shut off power when guide bar is up.
- Completely enclosed cam shaft to eliminate oil splash.
- More space provided between beams.
- More space from floor to lower beams.
- New beam arrangement.
- Brake on one beam feed for special knit fabric.
- Adjustable presser bar holder.
- All gauges—Knitting width 168"—Available with long needles for coarse gauge fabrics.
- Pattern wheel or chain link drive.

ROBERT REINER INC.

550-564 GREGORY AVENUE
WEEHAWKEN, NEW JERSEY

10 MINUTES FROM TIMES SQUARE. Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

out into the hopper.

So far, waste checks have shown that this added unit is taking out as much trash as the pickers themselves did without the unit. Although the picker waste and card fly have been somewhat reduced, the total waste removed is still greater than previously. Less than one-third of the increased trash is being removed by the extra beater preceding the jet, the majority being removed by the air itself in the Super-Jet.

Since the setting of the Super-Jet blade is adjustable, Wamsutta has been able to assure itself that the maximum amount of trash is being removed while virtually no spinnable fiber is taken out. This addition has manifested itself in the form of cleaner yarns with considerably less "pepper."

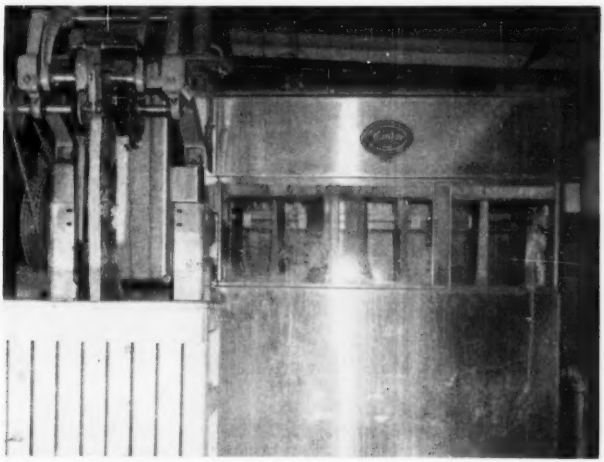
Case 76

One New Rope Washer Replaces Six Old Soaping Machines

A NEW Flexreel rope washer installed at Arnold Print Works, Adams, Mass., has replaced six wooden old type rope soapers. Made by the James Hunter Machine Co., the new washer saves the labor of two men, uses much less power, water, soap, and steam, and occupies a fraction of the floor space. Moreover, production has been doubled and quality improved.

Constructed of heavy gauge stainless steel, the Flexreel washer incorporates a newly-developed principle in which the amount of entering cloth is automatically controlled. The heart of the machine is the individual reels with their flexible slats. Any tension in the cloth immediately deflects the slats, thereby adjusting the reel speed to the speed of the cloth approaching it. Each reel acts in the same way so that only enough tension is applied to the cloth to pull it through the washing bath.

HEART OF THE WASHER is the individual reels with their flexible slats. Amount of cloth entering machine is automatically controlled.



Case 77

Aluminum Parts Help Increase Production

MILL OPERATORS in several sections of the country report that the use of aluminum parts has helped them to increase production, improve quality, and reduce operating costs. The general reaction of the textile industry toward the lightweight metal can be summed up in the words of one southern executive: "We like to use aluminum wherever it is practical."

Low maintenance costs are among important advantages of aluminum parts reported. The parts have a high degree of dimensional stability, and it is possible to maintain better dynamic balance of machine parts operating at fast speeds. The result is less vibration at high speed and lower operating costs. Aluminum parts seldom need to be painted for protection.

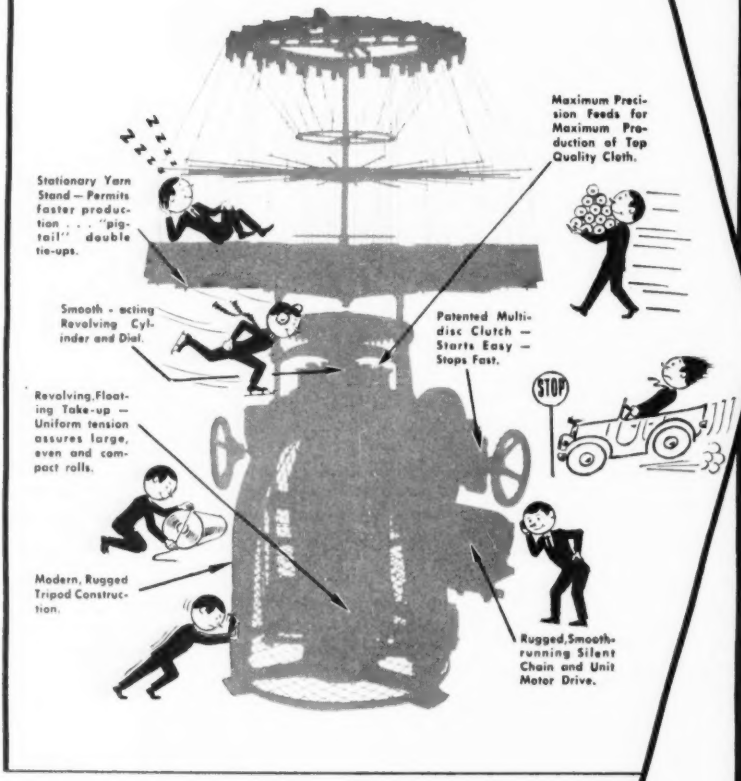
One manufacturer of wool cards uses aluminum for frame castings of automatic scale pans. Light weight is important here, and the manufacturer says he has obtained greater accuracy in weighings after adopting aluminum.

Maximum production from some types of machinery depends upon the speed of motion of the parts; so light weight, low inertia, and good dynamic balance are desirable qualities. In yarn preparation equipment, aluminum extrusions are now used for step, bolster, and snug rails in roving and speeder frames. Smoother operation and reduction of counterbalance weights are the two principal advantages of aluminum reported for these parts.

Walter Regnery, president of Joanna Cotton Mills Company, Joanna, S. C., conceived the idea of building up spindles to accommodate straight-sided paper tubes. To build up the spindle he devised an aluminum adapter that fits over the top of the spindle. Over the jacket was fitted a fairly conven-

MEET SUPREME'S WHOLE FAMILY OF PROFIT-KNITTERS

. . . and the mill-proven features they all inherit—


Stationary Yarn Stand — Permits faster production . . . "pig-tail" double tie-ups.
Maximum Precision Feeds for Maximum Production of Top Quality Cloth.
Smooth - acting Revolving Cylinder and Dial.
Patented Multi-disc Clutch — Starts Easy — Stops Fast.
Revolving, Floating Take-up — Uniform tension assures large, even and compact rolls.
STOP
Modern, Rugged Tripod Construction.
Rugged, Smooth-running Silent Chain and Unit Motor Drive.

Model SR—KNITS PLAIN OR SWISS RIB—up to 56 Yards Per Hr.
Model SA-AF—KNITS WIDE VARIETY OF VARIABLE STRIPES AND PATTERNS — up to 40.5 Yards Per Hr.
Model ROF—KNITS JACQUARD-TYPE FLOATLESS PATTERNS — 30 to 45 Yards Per Hr.
Model MJ—KNITS WIDE DIAMETER AND BODY-SIZE JERSEY—up to 125 Yards Per Hr.
Model ML—KNITS PILE, LOOP TERRY AND PLUSH—up to 35 Yards Per Hr.
Model IC—KNITS FLEECE COATINGS —up to 30 Yards Per Hr.

Supreme's extraordinary engineering progress has emphasized versatile, high speed production of top quality cloth at low cost. This has been done without sacrificing any of the basic, proven and standard Supreme design features which are familiar to every Supreme user. These features play a vital part in making every Supreme machine a profit-knitter.

Ask for complete, free information on any of the Supremes shown here.

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SK-144

tional paper tube type of bobbin somewhat longer than the conventional bobbin used with the spindle in its original form. Cost of fitting existing spindles with the adapters is said to be less than purchasing new spindles to take larger bobbins. About 40 per cent more yarn can be wound on the larger bobbin without changing.

At the Hathaway Manufacturing Company, New Bedford, Mass., 2,000 looms in the synthetic division are equipped with beams constructed of aluminum barrels and cast iron heads. When Hathaway moved into the synthetic field on a large scale, it was discovered that aluminum loom beam barrels were more capable of withstanding the crushing effects of synthetic yarns than the barrels of conventional beams.

FOR MORE information on equipment and materials mentioned in these 78 case history reports, write to the suppliers indicated or address a request to Editor, "Textile Industries," 806 Peachtree St., N. E., Atlanta 5, Georgia.

The Fitchburg Yarn Company, Fitchburg, Mass., uses aluminum section spools on which cotton yarn is put up for tricot knitting machines. Similar in appearance to small section beams, the spools are 21 inches long with 5-inch diameter barrels and 14-inch heads. An empty spool weighs 10 pounds; filled with 650 ends of yarn weighing 37½ pounds, the total weight is not excessive. Use of the aluminum spools permits an immediate advantage in reduced shipping costs. A saving of at least 50 per cent in dead weight is achieved over the conventional spool. Fitchburg employees like the aluminum spools because handling is so much easier.

Hoosac Mills Corporation's plant in New Bedford, Mass., operates looms equipped with aluminum lays and hand rails. Here, aluminum is reported to be paying dividends by eliminating many maintenance problems. Shuttle flight is straight, and weaving is uniform. Life of shuttles is prolonged through reduction in wear from contact with uneven lays; loom maintenance expense is also reduced.

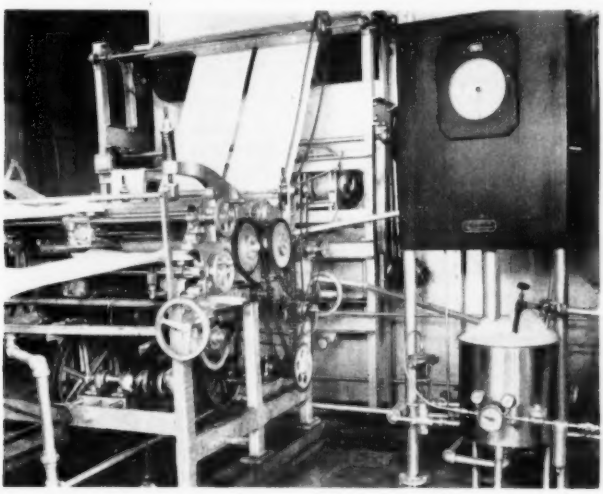
Case 78

Twaddle Recorder on Knit Goods Finishing Machine Lowers Costs, Reduces Rejects

A TWADDLE recorder used by an eastern knitting mill in conjunction with a Tube-Tex machine is reported to have paid for itself during the first three months of operation by lowering cutting costs and reducing rejects.

The instrumentation by Taylor Instrument Companies consists of a motion recorder, having a ball float with a reference and sample column constructed of stainless steel. A small pump is used to circulate the solution between the immersion box and the surge tank. The temperature of the surge tank is controlled by a simple air-operated controller actuating a diaphragm valve admitting steam to closed coils in the tank.

As the recorder shows the Twaddle reading going down, concentrated solution is admitted by a hand valve from a storage tank. This unit can also be obtained as a recording controller; in this case the concentrated solution would be admitted automatically through a diaphragm valve.



RECORD OF SPECIFIC GRAVITY of the solution is maintained by the recorder shown at the upper right. Air-operated controller for surge tank temperature may be seen near the floor under the instrument panel. Tube-Tex machine is at the left.

EXCLUSIVE

Another Case History

About some very important machinery in which all of our readers are vitally interested

By RINGGOLD ARDEN

THIS ISSUE of TEXTILE INDUSTRIES is dedicated to case histories of the results obtained from various machines and equipment under actual operating conditions. It might be appropriate therefore to consider a case history covering the operation of some very important machinery in which all of the readers of TEXTILE INDUSTRIES are vitally interested.

This machinery was first set up and put in operation in 1789. Being of admirable design, skillful construction, and great durability, it served the stockholders of the original corporation very satisfactorily and efficiently for a number of years with only minor repairs and modifications.

The original purpose of this machinery, as set forth by its designers, was:

> *To form a more perfect union; establish justice; insure domestic tranquility; provide for the common defense; promote the general welfare; and secure the blessings of liberty for ourselves and our posterity.*

Practically no changes in the basic design of this machinery were made until 1914. Previous modifications had been aimed at making the mechanism operate more smoothly, according to the purposes of its original design. Shortly after 1900 there was a considerable amount of complaint that this machinery was not as efficient as it might be for producing taxes, and after a good deal of debate one way and the other, the stockholders were persuaded to approve radical changes in this machinery.

The original designers had been very careful to see that the tax producing mechanism had been so arranged as to distribute tax pressures rather uniformly. Their decision to do this was based on long and intimate experience with tax-raising machinery which operated in a random and capricious manner. The modified equipment, after its changes in 1914, was arranged to apply varying tax pressures with the sole idea of getting the most taxes in the shortest period of time, and without due regard to the waste in the raw materials from which taxes are made.

This re-designed tax machinery has proved most wasteful of these raw materials, but since it has been capable of tremendous production of taxes, those in charge of its operation have favored this design, even at the risk of unreasonable depletion of the raw materials themselves.

At the beginning of the First World War, it was found that the new tax machinery, with very slight changes, was well suited to the production of inflation, which was a commodity the original de-

Micro-Motion Movies and Machine Design

Micro-motion movies (16mm. motion pictures taken at a fixed speed of 1,000 frames per minute) normally used for time and motion study purposes are now being employed by Eastman Kodak Co. to study machine design.

On one job, the company reports, production was increased 400% when new machines were designed after micro-motion movies revealed that many improvements in machine design and operation could be made. On another job these studies indicated that production would be increased considerably by designing the machine with push button controls rather than toggle switch controls. Savings amounted to more than $10,000 a year.

Application of the technique in many industries is envisioned by the company's industrial engineering staff. No extensive training in photography is required, it is claimed. The lighting and exposure problems are as simple as amateur movie making in the home.

Equipment required depends upon the approach to the job. Usually an electric-motor-driven 16mm. camera which takes pictures at a fixed rate of 1,000 frames a minute is used. An ordinary 16mm. home movie camera is, however, sometimes employed with a special clock which indicates thousandths of a minute. In addition to a 16mm. projector equipped with a frame counting device is also required.

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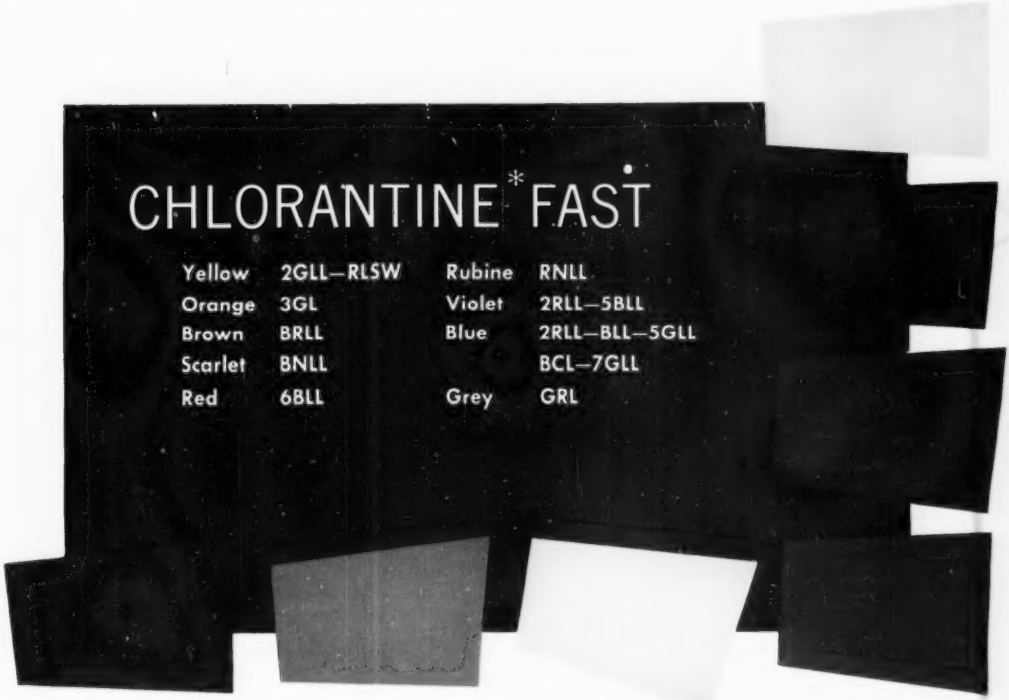

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Years

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TO THE TEXTILE INDUSTRY

★

J. M. CLAYTON COMPANY
Contracting Electrical Engineers
ATLANTA, GEORGIA

Substance of the New FTC Ruling on Acetate and Rayon

The Federal Trade Commission recently ruled that textile fabrics containing acetate yarn must be identified as "acetate," rather than classified under the former term "rayon." The FTC ruling, promulgated on December 11, 1951, not only recognizes the difference between acetate and rayon, but makes the distinction obligatory in all labeling, advertising, and sales promotion. Since 1937 the man-made cellulosic fibers have been called "rayon" by FTC ruling.

The following information on the difference between "acetate" and "rayon" was supplied by Celanese Corporation of America: Acetate and rayon are chemically different fibers. Rayon, like cotton and linen, is 100% cellulose and takes the same dyestuffs as those natural fibers. Acetate is made by chemically combining cellulose with other ingredients to form an entirely different compound, chemically different from any other fibers. Acetate takes the same kinds of dyes used for nylon. Acetate and rayon require different spot removing agents.

1. The term used to identify cellulose base fibers made by the cellulose acetate process shall be "acetate."

2. The term used to identify cellulose base fibers made by the viscose or cuprammonium process shall be "rayon."

3. Failure to so identify all articles made of fabrics containing these two fibers on labels and tags and in all advertising and promotional material is an Unfair Trade Practice.

Most ordinary stains are more easily washed out of acetate fabrics. The moisture absorption of acetate fibers is about half of that of rayon. Acetate fabrics dry more quickly, and when ironed slightly damp require a light smoothing out with a warm iron.

Less moisture absorption means acetate swells and shrinks less than rayon fibers. Fabric construction factors being equal, acetate fabrics are more dimensionally stable than those made of rayon. On the other hand, the ability to make a fiber shrink gives better creping qualities to rayon, and greater absorption means rayon is more desirable for hosiery or athletic garments.

Rayon's tensile strength is greater than acetate's and is better suited for utility fabrics or sheers.

Unlike rayon, acetate is thermoplastic. That means that with the proper equipment pleats, creases, moires, and fused selvages can be "set into" or placed on acetate fabrics. They are partially melted and then remolded to the desired shape. But acetate, like nylon and the other thermoplastic fibers, can be more easily damaged by excess heat than can rayon.

Moths will not harm either rayon or acetate. But, like cotton, rayon is attacked by both mold or mildew while acetate is resistant to damage from them.

signers of the machinery had not provided for. In fact, these designers had such a poor opinion of the desirability of that line that they tried to design the machinery so that it could not be readily modified to produce something that their recent experience had shown to be not only unprofitable, but ruinous. The older concern, whose business was being taken over by the new one, had in fact become bankrupt by installing machinery for creating a line of inflation which sold well to begin with, but later produced ruinous losses.

Between 1861 and 1865, when the old machinery in its original form was in use, a certain amount of inflation had been produced, but since the machinery was not well designed for this purpose, the line was later abandoned and inflation was regarded as unprofitable until this later re-introduction of that line about 1917.

For about three years, ending in 1919, the firm produced a tremendous quantity of this flashy and popular line, which was well received by the trade. Even after the directors of the parent corporation discontinued this line, it was so popular with the public that inflation continued high in favor until about 1929, when the whole line went sour and the country was found to be frightfully overstocked with it. Tremendous losses were taken by millions of persons who found it impossible to unload this overstocked inventory. Firms and individuals principally concerned with the production of inflation found it difficult to switch over to some more reliable line.

In 1932, the stockholders elected a new President and Board of Directors to cope with the serious results occasioned by this excursion into the production of such a dangerous commodity. The new President and the Board, after a very casual survey of the problem, decided that the difficulty had not been with the line itself, but with the trimmings and ornamentation which should make it attractive to the public; and the solution to the current economic difficulties was not in the discontinuance of this line, but in stepping up production of it instead of reducing it, and making the product once more acceptable to the trade by dolling it up with more chrome trimmings and flashy accessories.

In order to do this successfully it was deemed necessary to extensively overhaul, or even replace, the original machinery. As the new President pointed out, this machinery had been in use ever since 1789 and was probably worn out, and anyway it was designed at a time when stage coaches were considered pretty snappy transportation, and it could hardly be considered satisfactory for the problems of 1933.

A very large number of the Board of Directors agreed with the President, but the desired changes were difficult of execution because

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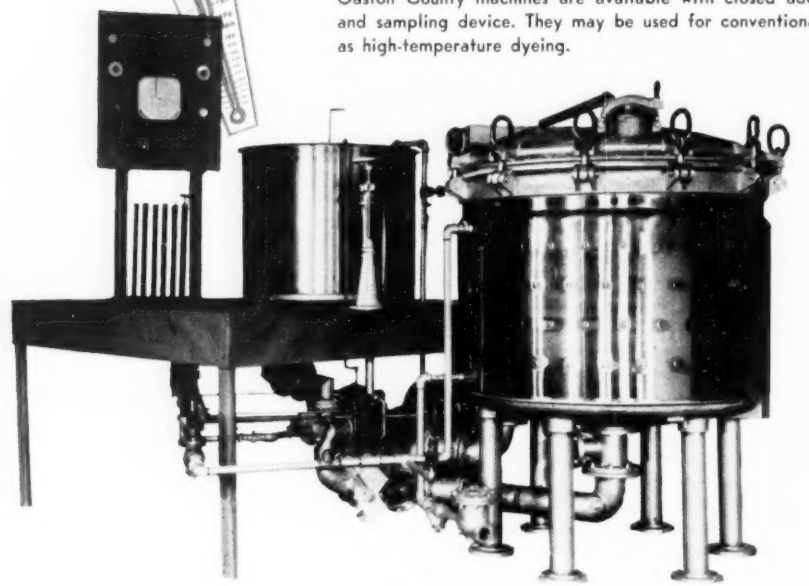
HIGH TEMPERATURE DYEING

Gaston County Dyeing Machines were the first to successfully meet the requirements for high-temperature dyeing. They remain the choice of leaders in the dyeing industry—a preference emphasized by the excellent dyeing results which users consistently report.

The *extreme pressures* necessary in high-temperature dyeing make sturdy construction essential. A distinguishing feature of Gaston County machines *has always been* their outstanding, rugged construction.

Gaston County machines are available with closed add-dye tank and sampling device. They may be used for conventional, as well as high-temperature dyeing.



GASTON COUNTY DYEING MACHINE CO.

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Gaston County Dyeing Machine Co.
Terminal Building, 68 Hudson St.
Hoboken, N. J., G. Lindner, Mgr.

The Rudel Machine Co., Ltd.
614 St. James St., W., Montreal
137 Wellington St., W., Toronto

the original founders of the corporation and designers of its machinery had included in its charter an Inspection Committee which was the final judge of the quality of the firm's output. This Inspection Committee disapproved of the new line proposed by the President and the new Board of Directors. The Inspection Committee held that this was a cheap, flashy line, with temporary appeal, and capable of producing a quick profit, but at the expense of long-term gain, and was therefore undesirable and likely to cause great and irretrievable damage in time.

The new President was incensed at this mulish attitude on the part of the Inspection Committee in insisting upon the maintenance of quality and the protection of the firm's reputation when a quick, easy profit could be had by cheapening the line. An attempt was made to add inspectors who could be depended upon to pass goods of inferior quality, but this created so much discontent among the stockholders, who had great confidence in the Inspection Committee, that the plan was abandoned for the time being.

The President and the Board, however, busily set about making such modifications in the original machinery as could be accomplished in spite of the opposition of Inspection Committee. Many of these modifications were originally designed by the firm of Marx and Engels in Germany.

No firm of any size or importance had ever used this machinery, and a few small outfits which had tried it found the product to be of such poor quality that the designs were abandoned for many years. This equipment had been revived first by the firm of Lenin & Trotsky in Russia, and shortly after by Mussolini & Company in Italy. The A. Hitler Politikwerke also adopted these designs for use in Germany.

The firm of Lenin & Trotsky was dissolved upon the death of the senior partner, and the business was taken over by Stalin & Company. Under this new management, that firm became very active, and thousands of its salesmen were sent to the United States to try to sell the Marx & Engels apparatus.

About the same time, many salesmen were sent over here from the Hitler firm, which was marketing the same equipment under the "Nazi" trademark. These salesmen met with little success in the United States, and their line seemed to lack sales appeal. The representatives of the Stalin firm, however, were moderately successful for a time, and although their equipment was almost identical with that of the Hitler concern, it was more streamlined in appearance and dressed up with a greater quantity of chrome trimmings and a flashy paint job to conceal the poor quality of the machinery itself. The attractive appearance of this second-rate equipment deceived a great many of our top officials here in the United States, although consultation with engineers familiar with such apparatus would have at once disclosed its failings and its complete inability to perform any of the functions for which the old original American governmental machinery was designed.

In the territory covered by the firm of Stalin & Company, their apparatus is used exclusively, and the unsatisfactory nature of its operation from the standpoint of the American specifications seems to be clearly proven by the fact that in that entire territory there will not be found any of the products the American people feel that this type of machinery should produce.

In spite of the well known history of its unsatisfactory performance, a good bit of this equipment was purchased with the consent and approval of our President and the majority of the Board of Directors. In many instances engineers furnished by Stalin & Company

(*Continued on page* 221)

Wool Mills Urged to Handle Blends Carefully

In a recent edition of its "News Letter for Wool Textile Executives" The Wool Bureau, Inc., urged woolen and worsted mill management to take appropriate precautions in handling blends of wool with synthetic fibers and requested suggestions on practical methods of blending which do not require storage bins.

Basis for the warning was a letter directed to the Bureau by the Engineering Division of The Associated Factory Mutual Fire Insurance Companies which stated in part: "The trend toward blending of wool with viscose or saponified rayon has introduced numerous problems from a hazard point of view, especially where blending is practiced by bin method. Even a small percentage (15-20%), when mixed with wool, places the hazard in the cotton class."

Suggestions for reducing or controlling fire hazards of blending and preparatory handling included:

(1) Maintain excellent housekeeping throughout picking, carding, combing, etc., departments;

(2) Locate equipment so that fire will have less chance of traveling from one machine to another;

(3) Maintain machinery in good condition and lubricate it properly;

(4) Divide loose stock into the smallest practical lots, especially when bins are used;

(5) Construct bins according to standard recommendations;

(6) Bale stock where practical;

(7) Where mixed fibers are dyed in one operation, operate dryers carefully and insist on good housekeeping; maintain careful control of moisture content of stock so that it does not become completely dried when passing through dryer (leave from 10-15% moisture in fiber mixture); see that dryers are equipped with sprinklers.

"One important condition which definitely should be impressed on mill management," the Factory Mutual letter stated, "is the life hazard. There have been several instances where lives have been lost in blending-bin fires due to the rayon content of the mixtures."

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Precision is never an accident. Unvarying quality must be put there by the maker . . . whether it's in Victor Mill Starch, bolts or screws.

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That's why both Victor and the Keever man are known as "The Weaver's Friend."

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The articles appearing in this department, like those in the feature section on which the "Exclusive" symbol appears, were prepared exclusively for TEXTILE INDUSTRIES.

Kinks are paid for at regular space rates, and an additional $100 is awarded the winner in each contest. See announcement at bottom of this page for current contest.

Discussion on End Breaks and Front Roll Speeds in Spinning

EDITOR TEXTILE INDUSTRIES:

My analysis of data regarding the relationship between spinning end breaks and front roll speed in 23 mills shows that many factors vary among the mills, and the factors are more effective than any differences in front roll speed. Therefore, whatever effect a difference in front roll speed may have made could not be measured. In an effort to eliminate other effects, my analysis considered four other factors which were assumed to reflect the greatest effect simultaneously with front roll speed. In order of importance, the factors affecting variation in end breaks among mills are as follows:

(1) Yarn strength
(2) Relative humidity
(3) Difference in ring and bobbin diameter
(4) Twist multiple
(5) Front roll speed

The effect of the factors collectively was significant statistically; however, individually only the yarn strength was definitely indicated to be related to the number of end breaks. Actually the data reflected no effect of front roll speed on end breaks. The analysis determined the effect of each factor when all the others remained constant. For instance, the measurement was of the effect of a change in front roll speed for the same twist multiple, relative humidity, yarn strength, and the same difference in ring and bobbin diameter.

CONTRIBUTOR No. 8439

EDITOR TEXTILE INDUSTRIES:

There can hardly be any definite relationship between front roll speed and end breakages. After all, the front roll is only delivering the yarn and as soon as it is delivered, things happen to it from other sources.

Let us take the following example: A frame of 60s yarn running at 8000 rpm spindle speed is to be speeded up to 10,000 rpm. The first immediate picture is as follows:

	Present Speed	Higher Speed
Spindle rpm	8000	10000
Fr. R. Delivery	304"	378"
Trav. Speed 2" Ring Ft./Min.	4150 Ft./Min.	5200 Ft./Min.
End Breaks	E	?

Increased spindle speed causes the traveler speed and tension to increase. Traveler tension may be decreased by putting on a lighter traveler.

The increased speed also increases the chance for breakages to occur at smaller intervals. Faster roller speed causes more frequent lashed ends (running over to other spindles).

If the increased speed is not abnormal and the correct traveler is put on (to ease tension) we may

KINK CONTEST!
15 minutes of your time may be worth $100

This contest ends March 15, 1952.

EVERY kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are received.

The contest rules are simple:

All contributions must be postmarked not later than midnight, March 15, 1952.

A photo or rough sketch will make your entry more valuable, but if you don't have either, send us your kink anyway.

A single $100 award will be made at the close of the contest, and the decision of the judges is final.

Send your contest entry to: Editor TEXTILE INDUSTRIES, 806 Peachtree Street, N. E., Atlanta 5, Georgia.

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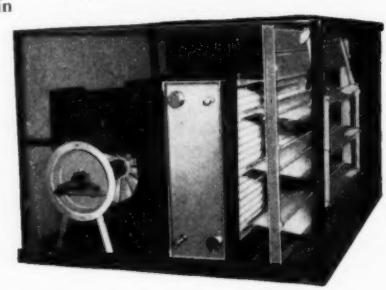
● Here is information on the very latest developments by "Buffalo"—the new model "G" Air Conditioning Cabinets. Bulletin 3703A explains fully, by detail photos, diagrams, charts and tables, what these units can do for you.

You'll be interested in the developments in these new "Buffalo" units. External appearance is clean and modern. The light, efficient "mixed-flow" fans are stable in performance over a wide range of capacities and pressures. Sectionalized construction and standardized parts make for easy installation, simple maintenance and flexibility of combinations. The new model "G" Vertical Type "VPC" Cabinet is in three easy-to-assemble parts — blower head, coil section and pan — easy to move through ordinary building openings — and uses flat type Hi-velocity filters, which greatly reduces the space requirements of the unit. Both Vertical and Horizontal cabinets may be equipped with Air Washer sections, and any air conditioning function or combination of functions can be had.

For helpful information on your air conditioning problems, write today for Bulletin 3703A, on your company letterhead.



"Buffalo" Model "G" Type "PC" Cabinet with side panels removed. Simple cooling, cooling and dehumidifying, heating and humidifying, continuous cleaning — are available functions in these cabinets.

"Buffalo" FIRST FOR FANS

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VENTILATING FORCED DRAFT	AIR WASHING COOLING	AIR TEMPERING HEATING	INDUCED DRAFT	EXHAUSTING PRESSURE BLOWING

observe more breaks per time unit, but in many cases the breaks per unit length delivered is less. Or more clearly, by increasing front roll speeds within normal limits we may observe higher breakage per spindle per hour but find that spindle breaks per 10,000 yards delivered are less in the case of the higher speed. Furthermore, when trying to establish clear relationship of breakages we should eliminate all breakages emanating from lumps going through, leaves, burlap fibers, creeling, piecing, etc.

The foregoing leaves us breakages due to:

(1) too small empty bobbin diameter
(2) too large ring for yarn counts spun
(3) too high traveler foot speed
(4) too heavy traveler
(5) spindles not plumb
(6) atmospheric conditions
(7) lift too high
(8) poor rings
(9) other unnamed causes

The acid test though, which happened recently, is this: We have for years run 60s yarn (long staple) on 8,600 rpm, 2" rings, 7½" lift, and found a long term average end breakage of .30 breaks per spindle per 10 hours.

When replacing the old 7½" spindles with modern ball bearing 8½" spindles we have run this same number (60s) on 10,000 rpm (instead of 8,600) and realized an end breakage (several tests) of only .29 per spindle per 10 hours. This is conclusive proof that smoothness of run will permit larger speeds at no greater end breakage, and (in my opinion) no relationship exists between front roll speed and end breakage.

Normal (fairly sizable) front roll speed increases may be attempted without undue increase of end breaks: (1) if present traveler speed is not already too high; (2) if empty bobbin diameter is in good proportion to ring size; (3) if modern true running spindles are used.

At higher front roll speed the corresponding higher spindle speed can cause end break increase due to excessive spindle vibration of old type spindles. The higher end

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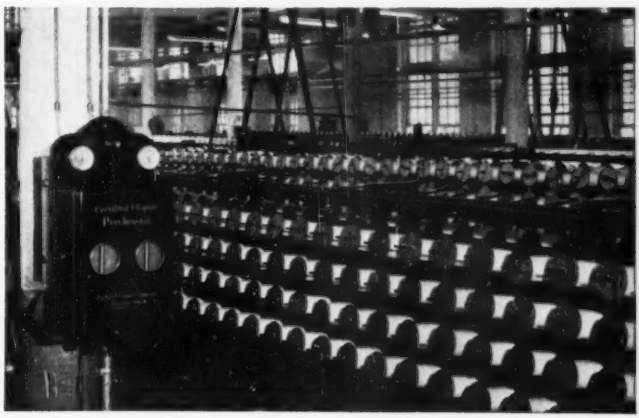
Gradumatic Humidification

Controlled by the improved Certified Climate Psychrostat, Gradumatic Humidifiers operate continuously whenever moisture is needed.... A mere breath from each atomizer (as little as 2 pounds per hour) *at any time*, or as much as 16 pounds of fog-like vapor from each atomizer, if needed, *some of the time*. But Gradumatic humidification *all the time*.

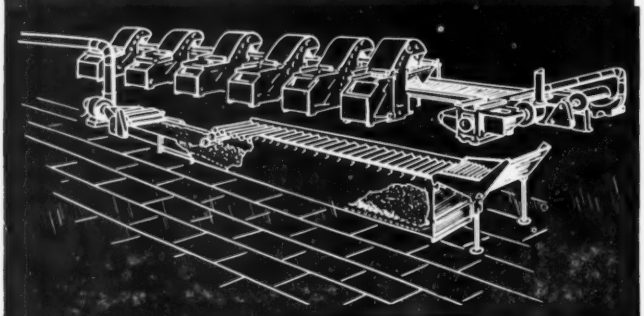


Parks-Cramer Company

Fitchburg, Mass. PARKS Certified Climate Charlotte, N. C.

Accurate, Automatic Blending

in **YOUR MILL**



is yours with a

PROCTOR *Mill-Engineered* SYSTEM

As the blending of synthetics and natural fibers increases in the manufacture of textiles, more and more mills are realizing the importance of accurate, automatic blending equipment. If you are among the mills where blending is taking on added importance (and today that's nearly every textile mill)—you'll be interested in Proctor "mill-engineered" equipment. Regardless of the size of your mill or the complexity of your blending operation—a Proctor system can be arranged to meet your individual requirements. In every mill where Proctor equipment is used management reports the same results—thorough mixing of fibers and an unsurpassed accuracy throughout the blend. These are profit making advantages that are guaranteed you the day you set your Proctor mill-engineered system in operation.

Your first step to profit is writing for Bulletin #373, a new folder on blending. Then, let a Proctor sales engineer show you how the basic principles can be applied in your mill.

Much Proctor drying equipment and textile machinery is covered in full or in part by patents or patents pending.

AN INVITATION TO PATENTHOLDERS

Have you patented equipment which you have developed for your own line of business that you would care to have developed, manufactured, or sold? If such equipment comes within the line of our manufacturing and selling experience, we would be pleased to have you contact us. We will discuss the matter with you without obligation. If there seems to be a mutual advantage we may be able to realize good returns on new developments.

PROCTOR & SCHWARTZ • INC •

610 TABOR ROAD • PHILADELPHIA 20 • PA •

Designers and Manufacturers of **Automatic Blending and Stock Conveying Equipment • Carding and Garnetting Machines • Dryers for Stock • Yarn Piece Goods • Nylon Setting**

breaks are the direct cause of either increased traveler tension, spindle vibration, or both.

End tensions can now be successfully measured with the new Brown Boveri Tensiometer, and knowledge of properly allowed end tensions will in the future indicate what speed to choose.

CONTRIBUTOR No. 8438

Waste in Ladies' Hosiery Mills

EDITOR TEXTILE INDUSTRIES:

Waste is an important item in full-fashioned mills and some plants are making efforts to measure the cost of waste made at each process.

It is not too difficult to measure waste in a hosiery plant where throwing operations are not performed. A record is kept of the pounds of material produced during a given period, and if a check is made of all material that is classed as waste, the percentage of waste in relation to processed goods may be determined easily.

Plants doing their own throwing have more difficult problems in controlling waste. A plant which has three throwing operations including twisting, sizing, and winding, usually has about one-half of one per cent waste for throwing.

A small amount of yarn is lost as waste at the twisting process, some during sizing, and a few inches are wasted at the winder. The exact amount of waste is difficult to measure, but a total of one-half of one per cent should be sufficient to cover all three processes.

We find that three per cent is the average amount of waste at the knitting process, and this is where the greatest waste occurs.

An effort is made at our plant to reduce waste to a minimum in knitting. We have assigned several employees to the task of re-topping all legs that have been pressed

off at the machines.

Other mills may have a different system for controlling waste, but we think ours is one of the best. 3½% waste for all operations, including throwing, may be used as a safe guide in checking for excessive losses.

CONTRIBUTOR NO. 8402

Large Packages on Whitin F2 Frames

EDITOR TEXTILE INDUSTRIES:

I should like to obtain some information on how to build large package bobbins on Whitin Model F2 spinning frames. Our frames are equipped with Whitin dual-worm builder and bottom former.

Our fiber bobbins are 8¾" tapered from 1 1/16" at bottom to ⅞" at the top. In building the package, we use approximately 8" of the bobbin. Ring size is 2"; gauge 3½".

Additional data are as follows:

Cotton staple	1 1/16"
Yarn number	31s Long Draft warp
rpm front roll	130 (size: 1")
Spindle speed	9881
Traveler	4/0; 1½" circle; square point
Twist multiplier	4.39
Hank roving	1.65 single

The wind used in building our bobbin is a combination warp and filling wind. The stroke is 6". Each traverse is the same length and is started at a point slightly above that of the preceding one. The bobbin produced is tapered at the bottom and also at the top.

CONTRIBUTOR NO. 8407

EDITOR TEXTILE INDUSTRIES:

In my opinion CONTRIBUTOR NO. 8407, by all rules and standards, is doing all right with his frames as they are. If he is trying to obtain good quality work, his package size and speed are about up to maximum. The indicated traveler speed is now approximately 5200 feet per minute.

If a change were made to a 2½" ring, the traveler speed would be the limiting factor in

Something Really New in

PRINT GOODS AGING

is yours with a

PROCTOR LOOP AGER

You just can't keep the lid on something good. Not a word has been said in print about the new Proctor Loop Ager that went into operation some months ago—and yet textile finishers are already beginning to inquire about it. It's little wonder—for here is something that is really new in print goods aging. Designed for aging vat colors on print goods, this new ager is a compact, loop type machine, incorporating all features essential to good aging—including the maintenance of a virtually air-free atmosphere. Useful in handling a wide range of goods from very light fabrics to heavy drapery materials, it provides production of approximately four times that of previous machines per man hour. Floor space per yard of cloth processed is one-half that previously required. The danger of water spots, mark-off, and broken selvages common to other types of agers, has been eliminated. During the critical part of the aging cycle the printed face of the cloth is not in contact with rolls or other supports and is uniformly exposed to the steam atmosphere. For more complete information write today.

Much Proctor drying equipment and textile machinery is covered in full or in part by patents or patents pending.

AN INVITATION TO PATENT HOLDERS

Have you patented equipment which you have developed for your own line of business that you would care to have developed, manufactured, or sold?

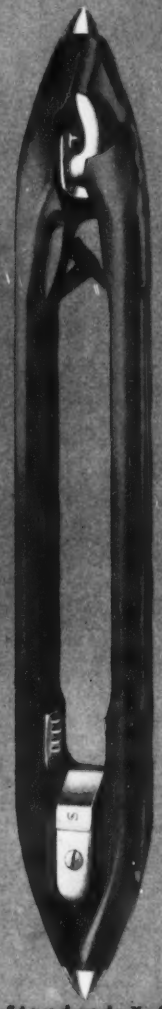
If such equipment comes within the line of our manufacturing and selling experience, we would be pleased to have you contact us. We will discuss the matter with you without obligation. If there seems to be a mutual advantage we may be able to realize good returns on new developments.

PROCTOR & SCHWARTZ • INC •

610 TABOR ROAD • PHILADELPHIA 20 • PA •

Designers and Manufacturers of Automatic Blending and Stock Conveying Equipment • Carding and Garnetting Machines • Dryers for Stock • Yarn Piece Goods • Nylon Setting

Stehedco and Southern



A few of the many popular type eyes

Standard X-2 Draper Loom Shuttle, with series of interchangeable eyes

1-1-11

#162 Short Eye, solid short cover with complete scroll

that a spindle speed reduced to 8500 would produce a traveler speed of 5560 feet per minute which is maximum in this instance. Front roll speed would be 114 rpm if twist per inch remains 23.75. This compares with the present roll speed of 130 rpm, and the decrease would be 12%. Production comes only from the front roll, and unless definite advantages are gained by cutting front roll speed (to obtain larger package and less knots), the overall cost will increase.

CONTRIBUTOR No. 8407 could change to a 2¼" ring and 9300 rpm spindle speed and not lose as much production, but the change would not improve the quality of yarn produced. It is bad practice to use a 2½" ring on a 3½" gauge frame in that the yarn would whip against the separator, especially at high spindle speed.

CONTRIBUTOR No. 8408

Slashing Troubles Enumerated

EDITOR TEXTILE INDUSTRIES:

The following comments should be helpful to many mills employing different types of slashers. Many years of experience have indicated the value of the data.

Uneven drying, rolls not in line, yarn sheets not centered in dryer, uneven squeeze, and exhaust not removing enough moist air are possible causes of poor results in slashing. Insufficient tension on the yarn sheet may cause trouble. If a two-ply selvage is sized, an extra loop of yarn should be placed behind the preheater coil.

Poor weaving may be attributed to size broken down by too much agitation, lumpy size, size too cold, uneven squeeze, squeeze roll slipping, too much stretch, improper size penetration, taped ends, selvage stuck together, yarns stuck together, and excessive shedding.

A number of conditions which affect slasher production and weave room efficiency may be found by seeking answers to the following questions:

Is the warp dried uniformly from selvage to selvage?

If two-ply selvages are used, are they sized, and if so, does the speed of drying depend on the selvage?

Has any provision been made for drying the selvages more than the body of the warp?

Are all the rolls, including the front end, back end, and beam creel properly aligned.

What provision has been made to obtain proper squeeze on the yarns in the size vat?

Is a solid or squirrel cage immersion roll used in the size vat?

How is the size prepared and supplied to the size vat, and how long is it aged?

How much stretch is allowed and maintained?

Are the heater coils vented at the outlet end?

Are the coils clean—especially the space between the two lower heater coils which can be cleaned only by removing the spacing channel between?

Are the fans revolving in the right direction?

Are any belts slipping?

Is the exhaust duct clean?

Is the yarn split in front ½, ¼, ⅛, etc., or is one beam torn out of the sheet at a time? Of course, the foregoing question applies also to three-can dryers.

Is there any backlash at high speed?

What kind of squeeze roll is used—blanketed, yarn-wound, or rubber?

What steam pressure is utilized in the heater coils?

Is a temperature control used in the distributing ductwork?

CONTRIBUTOR No. 8309

Steheco and Southern

SOUTHERN...

THE HALLMARK OF "THE WORLD'S FINEST SHUTTLE"!

To withstand the violent, numerous impacts produced by modern high speed looms, a shuttle must be rugged, yet consideration must be accorded the finest precision required in the unerring transmission of the most delicate threads used. *Southern* researchers, designers, development engineers and master craftsmen, working in one of the largest single unit shuttle plants in the world, *(100,000 sq. feet of modern dust and humidity controlled, air conditioned plant with the latest equipment)*, are responsible for initiating every major improvement in this, the most highly developed shuttle used in modern mills today.

Southern—Quality begins with the selection of raw materials and *Southern*'s own sawmills control this selection. Its vast factory and warehouses are always assured the pick of the world's finest shuttle materials. The scientific control of the drying process known as *Tempering* developed by *Southern* engineers, still remains a secret.

Southern has also applied its scientific materials selection, design, and manufacturing techniques to developing the foremost line of eye types for the most difficult yarns and fabrics. Controlled from their own foundry through their own patented machining process.

Southern tips, eyes, and grips when assembled into Tempered Dogwood blocks, produce the shuttle required for today's high speed looms and it is these shuttles that have earned for *Southern*, the title . . . "Scientific Shuttlemakers."

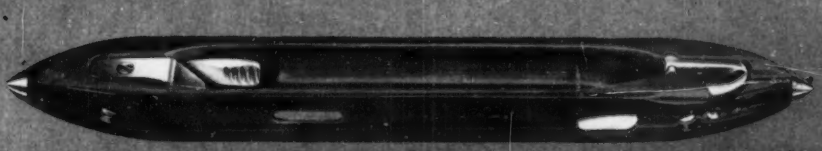
Billet flanked high speed [illegible] ing machines

Battery of routers forming [illegible] cuts and intricate indentations

Bonding and Covering department using secret formula and equipment

A section of final assembly

One corner of Eye Department



Standard S-6 CAK Loom Shuttle for 7/16" Quill

#800 Knee Tension Slanting Pad Eye

STEEL HEDDLE MFG. CO.

2100 W. ALLEGHENY AVENUE PHILADELPHIA 32, PA.

Other Offices and Plants

Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.

SOUTHERN SHUTTLES Paris Plant... Greenville, S. C.

A Division of STEEL HEDDLE MFG. CO.

STEEL HEDDLE COMPANY OF CANADA, LIMITED

310 St. Hubert Street Granby, Quebec, Canada

1-1-8

Southern

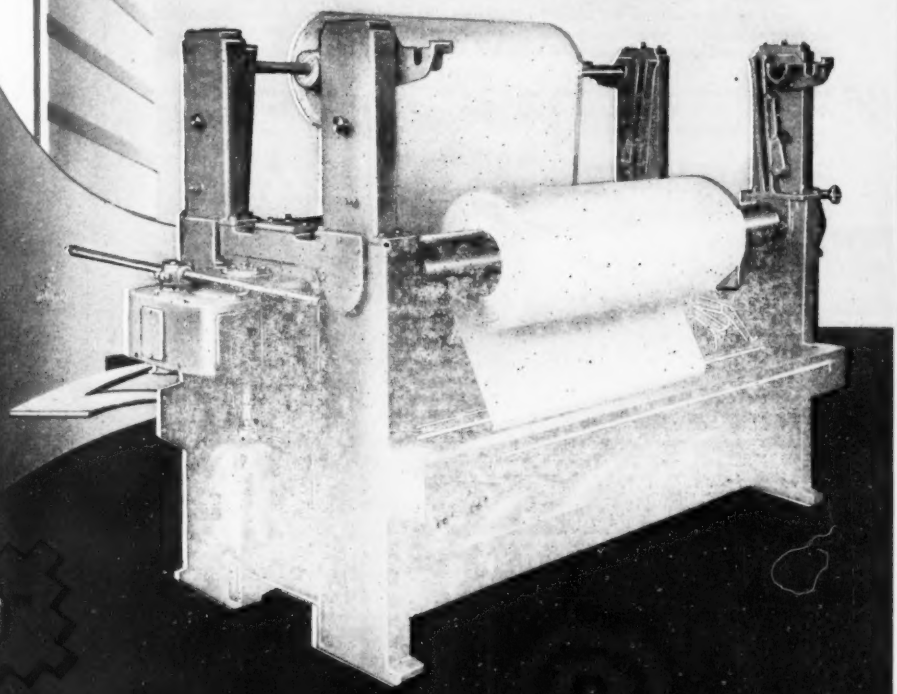
TEMPERED

QUALITY SHUTTLES

Engineered for the Future

A modern skyscraper must be designed for long years of future usefulness. It takes engineering talent of the first rank to design for the future—in textile processing equipment as well as in skyscraper construction. This is particularly true today because of the rapid growth in the use of the newer man-made fibers.

Van Vlaanderen, with fifty years of experience in textile processing machine design, is engineering for the future as well as for today. The versatile heavy-duty Type 888 Jig shown, embodies advanced features that will make it the standard of value for years to come.



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VAN VLAANDEREN

Spot Remover

(*Continued from page* 101)

An operative simply rubs the product, which has the appearance of a chalk stick, onto the stained portion of the fabric and then brushes out the powder. The powder disappears, taking with it the substance which caused the stain.

Available in two forms: a small pocket size, No. J-20, in a convenient lipstick type container; also a large household and industrial size, No. J-50.

Aeroxon Sales Co., 130 West 42nd St., New York 36, N. Y.

For additional data, request item B-103, using business reply card on page 252.

NEW Equipment AND MATERIALS

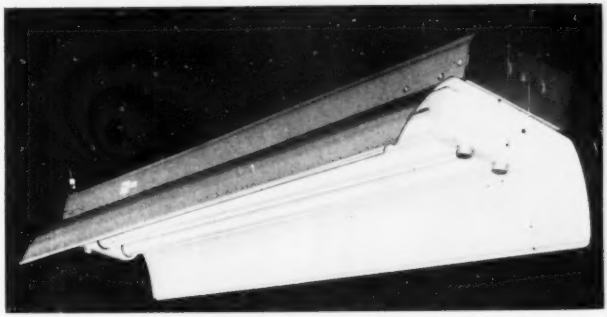
Other items are described on pages 99 and 101

Rust Resistant Fluorescent Lighting Fixtures

Designed to give more uniform illumination to all surfaces within the arc of the reflector, plus excellent shielding, a new line of industrial lighting fixtures features a finish that provides resistance to oxidation in installations where extreme humidity and other adverse atmospheric conditions prevail.

According to the manufacturer, the reflector is formed in a perfect parabola with the outside lamps at the center of curvature, or focal point, to provide maximum uniformity of down-light over the working area. Longitudinal shield, for greater lateral shielding, is available for all two-lamp fixtures.

Each part is treated against oxidation, then assembled with cadmium-plated screws, and finished individually with two coats of hot bonded, high-baked enamel. Units are adaptable to all mountings.



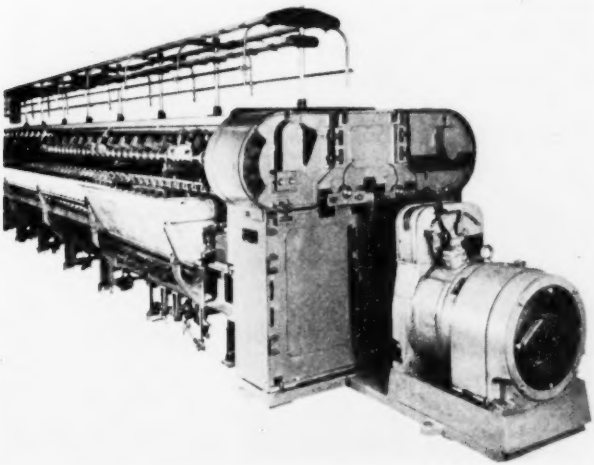
UNIFORM LIGHTING and resistance to rusting are features of this new fluorescent fixture by Gibson.

Gibson Mfg. Co., 1919 Piedmont Circle, N. E., Atlanta, Ga. (B-120).

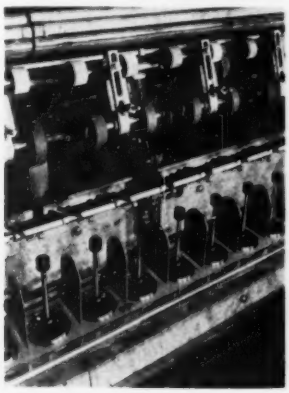
Ring Frame for Wet Spinning of Flax and Hemp

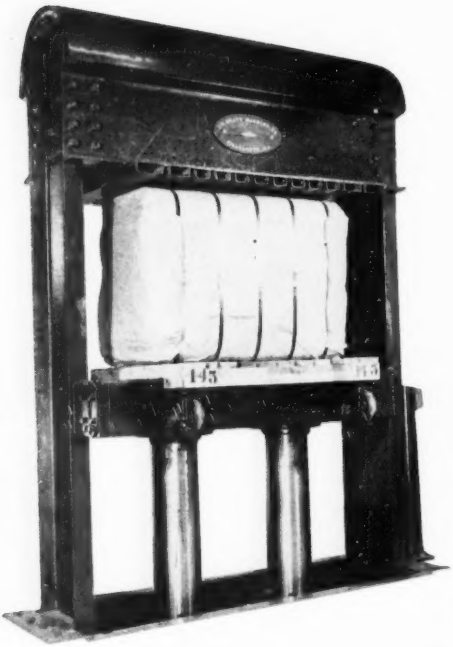
Substantial savings in cost and labor are claimed for a new ring spinning machine for the wet spinning of flax and hemp.

One of the main features cited for the new machine is the system for automatic lubrication of rings. A pump mounted at the end of the frame applies a small quantity of oil to the rings at fixed intervals, lubri-



FLAX AND HEMP can be processed on this wet spinning machine (left) by Fairbairn, Lawson, Combe, Barbour Ltd. Below, close-up of draft rolls and spindles.





UP TO **33%**

saving in time

WITH BEATY'S NEW

Balanced

CLOTH BALING PRESS

A REVOLUTIONARY development by Beaty of a *BALANCED* baling press—with platen on wheels—is a great advance in the cloth baling process. Newly re-designed and self-contained, BEATY'S Hydraulic Cloth Balers are highly praised by Mills operating them. They offer:

1) **GREATER BALANCE** with TWO rams
2) **TIME SAVING**—up to 33% over old types
3) **NO OIL LEAKS**—balers sealed against leakage
4) **REDUCED COSTS**—handling costs reduced materially
5) **SIZES**—from 50 to 200 tons as density requires (single ram types also available)

J. T. BEATY MACHINE CO.

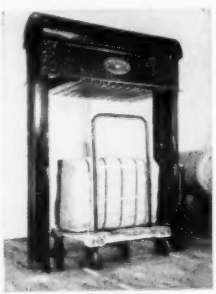
809 N. GRAHAM ST. CHARLOTTE, N. C.

The South's Pioneer Manufacturers of Hydraulic Cloth Baling Presses

1) Loaded cloth truck rolled into position over pressure block, ready for baling.

2) Bale completely compressed with ties put on and ready to be lowered.

3) Bale and truck lowered, pipe handle replaced and ready to be rolled to storage.



• *WRITE, WIRE OR PHONE FOR MORE COMPLETE INFORMATION*

Harness Frame Eye Prevents Damage to Adjacent Frames

The eye on the harness frame shown here will not damage adjacent frames, the manufacturer claims, because it is so designed that its outside diameter is less than the thickness of the "stick" (see cross section view at right). Known as the "Flattened Eye," it is said to have the strength of an ordinary eye, even though it has been flattened.

The inside of the eye is round and the same size as a standard eye. Both brazed and unbrazed types are available.

Steel Heddle Mfg. Co., 2100 W. Alleghany Ave., Philadelphia 32, Pa.

For additional data, request item B-101, using business reply card on page 252.

cating not only the vertical face but also the top of the rings. For this application a special type of oil was developed by the machine manufacturer.

Practically any yarn can be spun on the frame, the manufacturer claims, no matter how dirty or gummy, provided the rings and ring rails are washed at regular intervals with a warm water hose.

High spindle speeds, high efficiency, and large packages are other features of the machine, which is described as a traversing ring design that builds a pirn type of bobbin. Ring rails are of solid extruded aluminum alloy, highly resistant to corrosion. The rings, of the vertical bearing type for ear-shaped travelers, are made of high quality stainless steel. Special bobbins made of plastic reinforced with nylon are used; they are said to have a high impact strength and to be non-absorbent to permit them to be used for drying the yarn on the bobbins.

Where weak yarns are spun, it is said to be advisable to use a spinning regulator motor. Two cams by means of an adjustable mechanism control the speed of the spindles, with the result that the cyclic tension variation due to changing bobbin diameter is leveled out so that excessive ballooning is avoided.

Drag adjustment by the machine operator is eliminated, the report indicates; instead it can be fixed by management. Piecing-up is made easy by a knee-brake which is fitted to the spindles.

To doff a spindle, all that is required is to remove the full bobbin without breaking the yarn; place an empty bobbin on the spindle, nipping the yarn between the bobbin and the spindle; and then tug the full bobbin to break the yarn. It is stated that two girls can doff the frame, one on each side, in 6½ to 7 minutes.

Fairbairn, Lawson, Combe, Barbour Ltd., Leeds, England (B-402).

NEW Equipment AND MATERIALS

NON-FLUID OIL
TRADE MARK REGISTERED

Acceptance Is the Real Test of Performance

. . . and NON-FLUID is accepted and used in 7 out of 10 Textile Mills in all sections of the country.

NON-FLUID OIL has gained this universal acceptance because its exclusive Drip-less, Waste-less properties and high quality offer "cleaner and better lubrication at less cost per month" in all types of textile machinery—from cards to looms.

Write today for free testing sample of NON-FLUID OIL and informative bulletin.

New York & New Jersey Lubricant Co.
292 Madison Ave., New York 17, N. Y.

Works: Newark, N. J.

WAREHOUSES: Atlanta, Ga. — Birmingham, Ala. — Charlotte, N. C. — Chicago, Ill. — Columbus, Ga. — Detroit, Mich. — Greensboro, N. C. — Greenville, S. C. — Providence, R. I. — St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

NEW Equipment AND MATERIALS

Combined Fungicide for Mildew Resistance and Water Repellency

Quindex W. R. 10% makes possible a one-bath treatment for textiles requiring both mildew resistance and water repellency. According to the manufacturer, this fungicide contains solubilized copper 8-quinolinolate and highly effective water repellents to meet a number of specifications for webbing, cotton duck, twill and other textiles used by the armed forces.

Besides giving optimum mildew resistance and excellent water repellency, the product dilutes easily at room temperature and provides a more uniform solution which stays more evenly dispersed than was possible with earlier forms of this compound, it is claimed. It also assures "foolproof" control, the manufacturer states, because the copper 8-quinolinolate content is standardized and no other copper compounds are used.

Nuodex Products Co., Inc., Elizabeth F, N. J.

For additional data request item B-102, using business reply card on page 252.

Clarification Regarding Source of Gara Selvage Trimming Machine

The Gara selvage trimming machine described on page 154 of the November 1951 issue of TEXTILE INDUSTRIES is manufactured by Messrs. Gabrian, Rapperswil, Switzerland. World distributor for the machine is Muschamp Taylor Limited, Vulcan Works, Pollard Street, Manchester 4, England. K. Inderfurth, P. O. Box 6161, Charlotte, N. C., is Muschamp Taylor's representative in the United States for the Gara selvage trimmer.

New Accessories for Instron Tensile Tester

Compression accessories now available extend the versatility of the Instron tensile tester. An auxiliary and easily removable crosshead is attached to the frame below the moving crosshead. Compression type load cells have a rigidly attached load sensitive table. The sample is compressed between the table and the moving crosshead. Full scale range of compression tests available, with three interchangeable load cells, extends from 20 grams to 5000 pounds. Also recently developed for

The Instron tensile tester.

Cleans Machinery .....Fast

Jarrett's META-CLEAN

. . . and Saves 3 Ways

1 On Cleaning Labor

Removes oil, grease, lint, and dirt in a fraction of the time ordinarily required . . . in 1/3, 1/2, and in one important case on record, in 1/7 the former time.

2 On Downtime

Equipment is thoroughly cleaned and back into production in short order . . . giving increased hours of production.

3 On Cleaning Material Costs

Jarrett's Meta-Clean is extremely economical . . . effective even when diluted with 20 parts of water.

For SPRAYING BRUSHING WIPING IMMERSION

Odorless
Non-flammable
Harmless to skin

Write for free sample and additional information.
Satisfaction Given—Not Promised

CECIL H. JARRETT COMPANY, INC.
Manufacturer & Distributor of Chemicals and Supplies, Newton, N. C.

SUPPLIERS AND MANUFACTURERS OF HEAVY CHEMICALS, SOAPS, DISINFECTANTS, FLOOR WAXES, CLEANERS AND SEALERS, INSECTICIDES, FLOOR MACHINES, PAPER GOODS AND JANITORIAL SUPPLIES

CALCO dyelines

Advertisement
No. 23 of a series

PREPARED BY AMERICAN Cyanamid COMPANY CALCO CHEMICAL DIVISION,
DYESTUFF DEPARTMENT, Bound Brook, New Jersey
New York • Chicago • Boston • Philadelphia • Charlotte • Providence

Calco®

For Fastness Before and After Resin Treatment...

Calcodur* Resin Fast Blue 2R and Calcodur Resin Fast Blue 2G are fast-to-light direct blues, developed especially for dyeing fabrics which are subsequently resin-treated. Their

outstanding properties are fastness to light and washing on viscose or cotton after the resin finish.

Ease of matching the final shade is assured to the dyer and finisher, because a minimum shade change is produced by resin finishes. Even in light shades they will withstand more than the usual requirements of forty Fade-Ometer hours. They exhibit ratings of four to five when given a No. 3 rayon wash test. Since these dyes leave acetate white, they are highly recommended for the dyeing of high quality acetate-viscose fabrics such as suitings.

They are bright and very level-dyeing, and will build up economically into rich medium to heavy shades. These two blues, alone and in combination, will provide a wide range of pleasing blue shades; or they can be used with other resin fast dyes to produce, with superior fastness, the numerous popular shades which are in current demand. *Trade-mark

A Progress Report on Printing

Mechanization of textile coloring methods continues. Many processes, once complex and time-consuming, are now done by continuous methods with less handling and greater production.

Keeping pace with this trend, new screen printing machines have been developed which have successfully mechanized former hand operations. These machines take cloth from a roll, print and deliver it dried, ready for further processes of color fixation.

Our line of Calconyls in a wide range of powder and solution types, supplemented by the Calco soluble vats, will meet the requirements of progressive printers.

Calconyl* Blue G	Calconyl Golden Yellow R
Calconyl Scarlet R	Calco Soluble Vat Gray
Calconyl Red B	Calco Soluble Vat Blue 2B
Calconyl Red G	Calco Soluble Vat Brown RR
Calconyl Red GB	Calco Soluble Vat Orange R
Calconyl Red R	Calco Soluble Vat Pink FF
Calconyl Violet B	Calco Soluble Vat Scarlet HB
Calconyl Yellow G	Calco Soluble Vat Violet 6R
Calconyl Yellow 2GR	

In some cases Calconyls are finished in more than one form, such as single and double solutions and powders.

A Respected Member of an Old Family—Calcomine* Brown M

From the standpoint of age, Direct Brown M is one of the oldest and best known of the direct dyeing browns; and because of its rich, chestnut brown shade, it is one of the most useful colors in this group.

Calcomine Brown M can be applied on all classes of cotton, rayon and viscose materials as well as silk and wool. It is suitable for dyed ground shades for colored discharge printing. Its fastness properties are improved by aftertreatment with copper sulfate or bichromate, or by diazotization and development.

The color can be dyed on wool, producing shades of excellent fastness to washing and to sea water. In union materials, the cotton, viscose and wool are dyed to about the same depth of shade.

Calcomine Brown M is especially recommended for package dyeing. It also enjoys wide use in dyeing of skein yarns and hosiery goods.

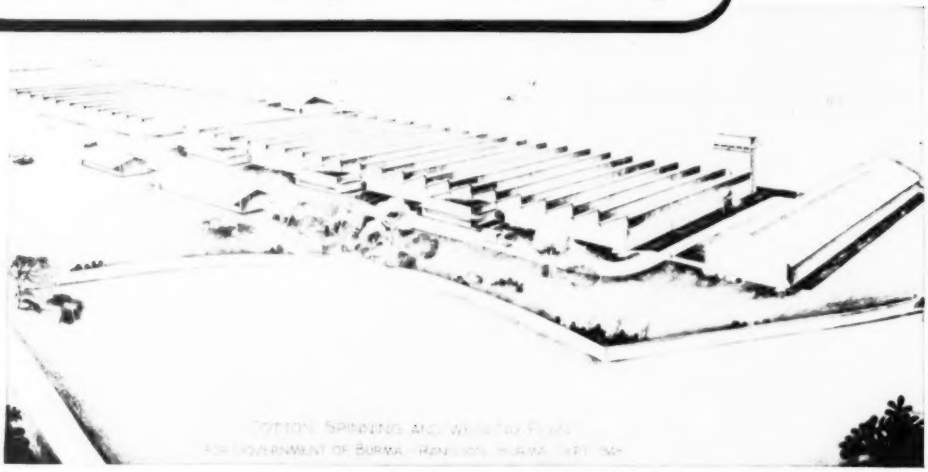
For the Textile Bookshelf

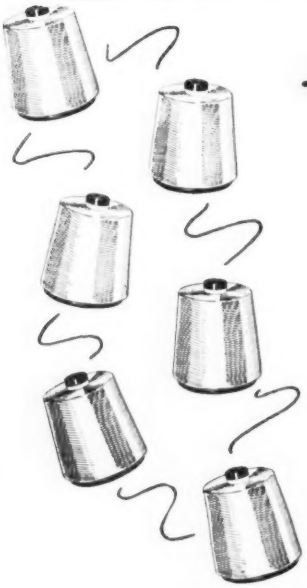
Dyeing of Wool Stock and Slubbing With Vat Colors by S. J. Luscian (Calco Technical Bulletin 819—Supplement to Calco Technical Bulletin No. 797 issued in 1947)—The reader is brought up-to-date on improved dyeing techniques as well as on data derived from extensive mill applications.

Application of Vat Dyes to Piece Goods by Ormond W. Clark (Calco Technical Bulletin 822)—A complete review of the development of vat dyes since their introduction to the dyeing industry. The various methods and procedures are fully discussed.

There are 113 Ph. D.'s, 44 Masters of Science and 407 Bachelors of Science employed at Calco.

Cotton Spinning and Weaving





A Record of Service

as measured by....

Number of Engagements	2,455
Complete New Plants	147
Major Additions	387
Reports, Appraisals, Studies and Minor Additions	1,921

Locations:

Every state where cotton is processed into textiles; many mills in foreign countries.

Cost of New Plants and Major Additions....over $200,000,000

Above is the architect-engineer's rendering of the first cotton mill in Burma, designed and supervised to completion by Lockwood Greene Engineers for the Government of Burma. Now in operation, initial facilities of this mill include 20,000 spindles for hand-weaving yarn and 200 automatic looms. Provision is made for a future bleaching and finishing plant.

LOCKWOOD GREENE *Engineers, Inc.*

ARCHITECTS • ENGINEERS

Boston 9, Mass. 40 Central Street
New York 20, N. Y. 10 Rockefeller Plaza
Spartanburg, S. C. Montgomery Bldg.

use with the instrument is an integrator with which the area under the load deformation curve equivalent to the energy either absorbed or returned by the test sample is immediately available from counter readings.

Instron Engineering Corp., 2 Hancock St., Quincy 71, Mass. (B-601).

New Flat Bed Seamers

Automatic lubrication, full-speed acceleration time reduced by 50%, greater speed and smoother operation with less wear, and smooth taupe finish are features cited for nine machines recently added to the Union Special line of 50000 Series flat bed seamers.

Three of the machines introduced are:

A single-needle machine, Style 51200 BW, for seaming canton flannel and leather palm gloves, is equipped with a knee lifter and produces stitch Type 401; stitch range: 6 to 14 per inch.

A single-needle machine for joining shoulders of shirts in one operation is designated Style 51200 BR; floor treadle lifter; seam specification 401-LSe-1.

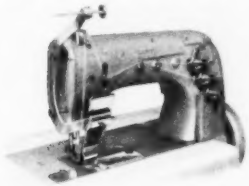
For attaching elastic bands, $\frac{3}{8}$" to $1\frac{1}{4}$" wide, in long lengths, garment lengths, or with ends joined to lightweight knit undergarments, Style 52700 BN is available; seam 406-LSb-1, inverted.

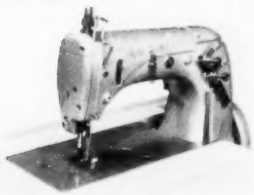
Other features claimed for the machines include: seize-resistant main bearings, better frame for housing the operating mechanism, coil spring is used instead of cantilever type presser spring at top of machine, permitting precise adjustment to apply pressure directly to the presser foot.

Union Special Machine Co., 407 North Franklin St., Chicago 10, Ill.

For additional data, request item B-107, using business reply card on page 252; please specify machine.

FLAT BED SEAMERS by Union Special. Upper photo, Style 52700 BN; lower, Style 51200 BW.





Multi-Purpose Grease

An improved multi-purpose grease for use in general industrial applications — Texaco Multifak 2 Grease — is recommended for use in situations which require one high grade grease for a variety of operations. Excellent shear stability, outstanding resistance against water washing, and good pumpability at low temperatures are advantages claimed for the new prod-

NEW Equipment AND MATERIALS

THE "JUNIOR CLEANER"

(Pat. Pend.)

Does a "Man-Size" Job!

For use between hopper and conveyor.

Delivers to regular cleaning line.

Completely opens and pre-cleans small amount of cotton delivered to each hopper in battery, so that machines in regular cleaning lines do *more cleaning* with *less staple breakage.*

Requires 43" between hopper and conveyor table.

PROVED BY TEST

Shown above is a complete installation of "JUNIOR CLEANERS" in opening room of an Alabama mill.

Manufactured by

GASTONIA TEXTILE MACHINERY CO.

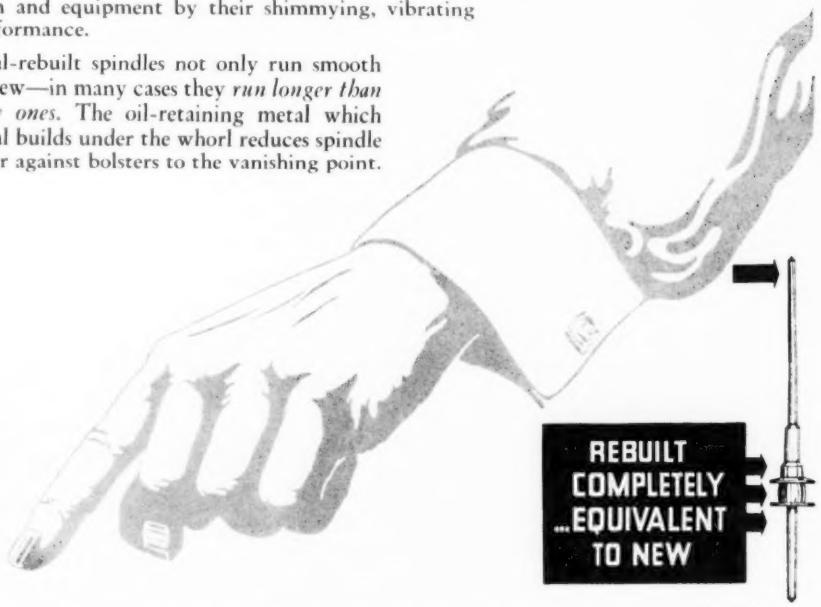
GASTONIA, NORTH CAROLINA

DON'T MISS THE POINT!

Ideal Machine Shops scores another money saving point in your favor by successfully metallizing spindle blades dead true *under the whorl*—restoring perfect shape and diameter!

Spindle repairs which neglect this all-important point *cannot* guarantee smooth performance on the frame. A spindle blade worn or flattened one-thousandth of an inch under the whorl can cause a vibration of three-thousandths at the spindle top. Incompletely repaired spindles may inflict expensive damage on yarn and equipment by their shimmying, vibrating performance.

Ideal-rebuilt spindles not only run smooth as new—in many cases they *run longer than new ones*. The oil-retaining metal which Ideal builds under the whorl reduces spindle wear against bolsters to the vanishing point.



REBUILT COMPLETELY ...EQUIVALENT TO NEW

FOREMOST IN TEXTILE METALLIZING—Ideal Machine Shops' outstanding success in Metallizing textile parts has resulted in a spindle repair service second to none in the Nation. High-carbon, wear-resisting metal is built into spindle tops, acorns and whorls—oil-retaining metal for bearing points under the whorl. Compare the performance of an Ideal-rebuilt spindle with any other, and be convinced of your savings!

IDEAL MACHINE SHOPS, INC.

Phones 4161 and 4391

BESSEMER CITY, NORTH CAROLINA

28TH YEAR OF CONTINUOUS SERVICE TO TEXTILE MILLS

uct. Suitable for application over a wide range of temperatures.

The Texas Co., 135 East 42nd St., New York, N. Y. (B-124).

Foxboro Redox potential recorder.

Redox Potential Recorder for the Marhen Process of Vat Dyeing

The EMF Foxboro Dynalog, calibrated directly in millivolts of reducing potential, is said to be ideally suited for the "Marhen" process for vat dyeing which is based on measuring the reducing potential of the dye bath (for details, see TEXTILE INDUSTRIES for December, page 151).

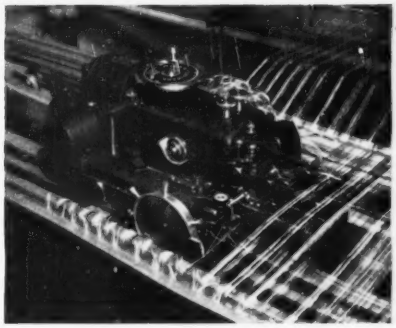
According to the manufacturer of the equipment, substantial savings in chemicals and dyestuffs are made possible by control of Redox potential with the instrument. By controlling the potential, prevention of over-reduction and shade changes is possible at high cloth speeds with temperatures approaching 205 F, it is claimed.

The instrument is directly connected to a platinum electrode which measures the potential with respect to a calomel reference electrode. It is described as extremely fast in response to changing conditions, is compact and simple, and easy to maintain.

The most common range unit at the present time is 800 to 1400 millivolts. Frequently, however, a different range may be required for different types of dyeing, and this change in range is easily possible

The fastest and most economical Warp Tyer in America ...

TITAN AUTOMATIC WARP TYER



We claim for it ONLY what it CAN do.
It is Completely UNIVERSAL.

1. Same machine ties warps with or without lease and unleased to leased warps or vice versa.
2. At or away from the loom.
3. In up to 108" widths in one operation.
4. Ties nylon, rayon, wool, worsted, cotton, silk or combination yarns.
5. Controls the lease.
6. Ties more ends per minute.
7. With easier handling.
8. At lower costs.

Write for references and literature.

Let us demonstrate the TITAN WARP TYER in your own plant on your own warps. Several of the many mills using TITAN mechanical tying-in equipment have had this demonstration and are now satisfied users.

Southern Representative:
Ira L. Griffin & Son
1429 Bryant Street
Charlotte 1, N. C.

EDDA INTERNATIONAL CORP.
468 FOURTH AVE., NEW YORK 16, N. Y. CALHOUN TOWERS, GREENVILLE, S. C.
U. S. General Sales Agents

BARBER COLMAN

Reduce Costs!

WITH THE

BARBER-COLMAN DRAWING-IN MACHINE

★ VERSATILE...

★ ACCURATE...

★ EFFICIENT...

DRAWS IN HEDDLES, DROP WIRES, AND REED IN ONE OPERATION

Many mills today are running such a variety of weaves, patterns, and stripes that the drawing-in operation becomes a major cost item. *Substantial savings* can be made by the use of a Barber-Colman Drawing-In Machine. This machine will handle any plain, fancy, or dobby weave. It draws-in all the heddles, drop wires, and reed in *one* operation — automatically selecting the proper heddle, drop wire, and reed dent for each thread. Any form of skip draw can be handled as easily as straight sequence, and the draw can be made from either a flat sheet or leased warp. The machine is available in a variety of capacities, drawing as many harness and banks of drop wires as required. Variations in size will take care of all standard loom widths. Modern mills of any size can take advantage of the versatility, accuracy, and efficiency of this outstanding machine to effect important savings in what has been a slow and costly hand operation. Consult your Barber-Colman representative for a discussion of possibilities in your own mill.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

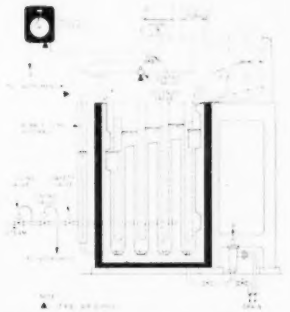
BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY

with this instrument, the manufacturer states. For example, another range sometimes used for wool dyeing is 400 to 1000 mv., or for package dyeing a range of 600 to 1200 mv. is desired.

By having spare range units, it is



WILLIAMS UNIT equipped with Foxboro Redox potential recording apparatus.

only necessary to replace the plug-in unit with the new one and the instrument will read millivolts in the new range span without further adjustment.

The most commonly used assemblies for supporting the electrodes are the immersion type and the flow type. The application determines the type of assembly to be used. For example, on the two applications currently covered by the "Marhen" process, the immersion type (directly in the bath) is preferable on the dye jig, whereas the flow type assembly is preferable for a continuous dye range such as one with the Williams Unit.

The Foxboro Co., Foxboro, Mass.

For additional data, request item B-111, using business reply card on page 252.

Molded Fiberglas Trucks Light in Weight, Easy to Clean

A new line of molded Fiberglas trucks is light-weight and easily cleaned, each truck being molded completely in one piece.

Unit molding eliminates the need for rivets, bolts, nuts, screws or other fastening devices apt to snag yarns and fabrics. A rounded reinforcing

U.S. ACME
MODERN THROWING EQUIPMENT

SERVICE THAT KEEPS THOSE SPINDLES RUNNING

to help you get better performance and better yarn quality at lower cost...

Your throwing profits remain steady . . . your yarn quality remains uniformly high . . . your costs stay low—when your throwing equipment is operating at top performance! These are basic, elementary facts and the reasons why U. S. Textile maintains an adequate stock of repair, replacement and modernization parts for throwing machines.

Whether you need repair parts to "keep those spindles running", or technical service to help you solve new throwing problems with your present machines—*CALL U. S. TEXTILE!*

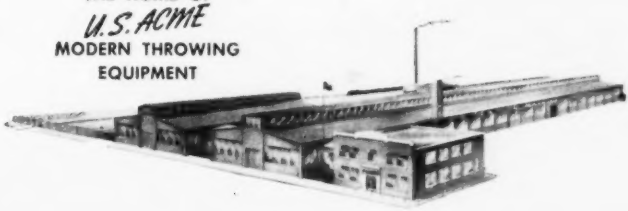
Most orders for parts are shipped within 48 hours, oftentimes the same day, because U. S. Textile service did not end the day you bought the machines!

Yes, a U. S. Textile technical expert will come to your plant when you need on-the-spot cooperation . . . and the many years' experience of our engineers and designers, the results of never ending tests in our research laboratory—are all available to you! *Write, wire or phone . . . U. S. Textile is at your service!*

SERVICE AT THE TIME OF PURCHASE...
SERVICE OVER THE YEARS!

U. S. TEXTILE MACHINE CO.
SCRANTON 8, PENNA.

THE HOME OF
U.S. ACME
MODERN THROWING
EQUIPMENT



ANOTHER DOW CORNING SILICONE PRODUCT

DeCetex 104

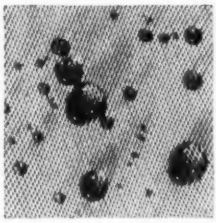
the most durable water-repellent for synthetic fabrics

Here's the kind of durability you have been looking for in a water-repellent treatment for synthetic fabrics. Materials that have been the most difficult to treat—acetate, viscose, nylon, Orlon, Dacron and mixtures of natural and synthetic fibers—can now be given a durable water-repellent finish. And by durable, we mean a treatment that will retain a spray rating of 90 to 100 after 10 dry cleanings; 80 after three 2-hour launderings.

There's no change in porosity, color or colorfastness. The silicone finish is free from mark-off; it imparts a full, soft "hand" and it has a stabilizing effect on some materials.

Furthermore, DeCetex 104 is easily and inexpensively applied from a water emulsion with conventional equipment. You do not have to wash or neutralize the treated fabric and it remains odorless even after aging.

In an ounce of DeCetex 104 you get millions of invisible silicone umbrellas that don't fold up after the first two or three dry cleanings. If you are not already familiar with DeCetex 104, write for technical data sheet BL-14.



This DeCetex treated fabric looks and feels like any ordinary nylon marquisette with a weave as open as a window screen. But water rolls over the fabric unable to wet the fibers.

She's wearing her umbrella of DeCetex treated rayon skarkskin. All she has to do is brush the little droplets off her suit, and she'll be as dry and look as fresh and neat as ever.

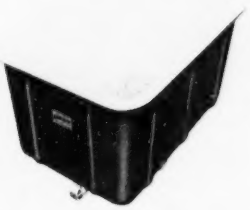
ATLANTA • CHICAGO • CLEVELAND • DALLAS • LOS ANGELES • NEW YORK • WASHINGTON, D. C.
In Canada: Fiberglas Canada Ltd., Toronto • Great Britain: Midland Silicones Ltd., London

FIRST IN SILICONES
DOW CORNING CORPORATION
MIDLAND, MICHIGAN

NEW Equipment AND MATERIALS

top rail is built-in, and vertical ribs are provided to supply extra strength. The result is a strong, smooth interior and exterior finish with controlled wall thicknesses. All horizontal and vertical corners have a gently curved radius which makes them easy to drain and clean.

The trucks are non-conductive to static electricity and can withstand



Laminex molded Fiberglas truck.

all chemicals commonly used in dyeing and finishing as well as in yarn conditioning, the manufacturer states. Construction is such that in event of accidental damage any truck can be repaired by unskilled labor right on the job.

Propelled on easily replaceable casters of several choices, the trucks are provided in a range of sizes from a small lace yarn model to a large dyehouse truck capable of handling 3500 pounds of wet goods.

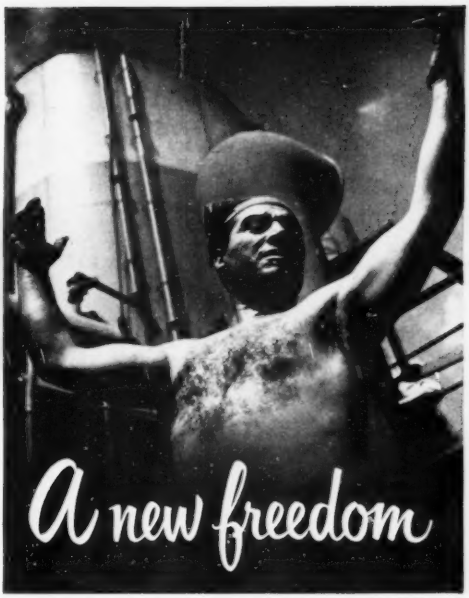
Laminex Corporation, 994 Jefferson St., Fall River, Mass.

For additional data, request item B-106, using business reply card on page 252.

Octave-Band Analyzer for Noise Measurements

The General Radio Type 1550-A Octave-Band Noise Analyzer is said to be particularly useful in applications where reasonably continuous spectrum noises are found and great detail in the analysis is not required. It has been used successfully for determinations of loudness, speech-interference level, articulation index, and in other problems involving reduction of noise to produce comfort or ear protection. The instrument can also be used in the determination

Across the face of the World a new Freedom spreads . . . like a strong man's smile . . . a Freedom from heavy burdens . . . a Freedom from beastly toil . . . a Freedom from useless costs . . . a Freedom from waste and spoil . . . It is a Freedom brought by Machines . . . and by Methods created by Men who engineer history for the greatest good of their Kind.



IN A WORLD divided by Iron Curtains and conflicting ideologies, it is refreshing to contemplate a better tomorrow made possible by a new-found freedom available to all—the Freedom from Toil, a Freedom springing from the use of modern machines.

The Clark Equipment Company is proud to have contributed to the emancipation of the laboring man through the development and creation of machines to bear his most exhausting physical burdens.

A Electric-Powered HAND TRUCK with Stacker. B TRUCLOADER with CRANE Attachment—1000 lb. cap.—gas or electric power. C CLIPPER with RAM Attachment—2000 lb. cap.—gas or electric power. D CARLOADER with BARTEL Device—3-4-5000 lb. cap. gas or electric power. E YARDLIFT with SHOVEL Attachment 2-4-6000 lb. cap. gas power only. F UTILITRUC with CLAMP Attachment 6-7-10,000 lb. cap. gas or electric power. G YARDLIFT—150 with Standard Forks 15,000 lb. cap. gas power only. H CLARKTOR—100-10,000 lb. draw bar pull. I CLARKTOR—47 to 104 tons hauling capacity on level. J CLARKETTE—5-10 tons hauling capacity on level. K CLARKAT—42 to 58 tons hauling capacity on level. L TRUCTRACTOR—Dump model 4000 lbs. capacity. M TRUCTRACTOR—Tip-model 4000 lbs. capacity.

CLARK ELECTRIC AND GAS POWERED FORK TRUCKS
AND POWERED HAND TRUCKS · INDUSTRIAL TOWING TRACTORS

These Clark publications will help you and your workmen to enjoy the many benefits of this New Freedom. Any one—or all—of them will be sent to you upon request

INDUSTRIAL TRUCK DIVISION • CLARK EQUIPMENT COMPANY • BATTLE CREEK 61, MICHIGAN
Please send: ☐ Movie Digest ☐ Safety Saves ☐ Basic Facts ☐ Material Handling News
Name _____
Firm Name _____
Street _____
City _____ Zone ____ State _____

AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

NEW Equipment AND MATERIALS

of the sound-transmission loss of building walls, partitions and floors; and is useful as a selective bridge detector or filter, the manufacturer claims.

General Radio Co., 275 Massachusetts Ave., Cambridge 39, Mass. (B-125).

Anti-Friction Bearing Lubricant for High Temperature Operation

A premium grade anti-friction bearing lubricant — Texaco High Temp Grease — affords protection to ball, roller, and plain bearings at temperatures up to 300 F for continuous operation and 350 F for intermittent operation. Excellent oxidation resistance is one of the claims made for the new grease. A characteristic said to be unusual is the efficiency of its performance at high speeds. Its water resistance makes the product applicable in operations where long retention of grease and resistance to washing out are factors, the manufacturer claims.

The Texas Co., 135 East 42nd St., New York, N. Y. (B-123).

Pin-pointed Tack Driver

Designed for all types of tacking and fastening is the model T-1 tacker illustrated. It drives a pin-size tackpoint and holds 100 T-head tacks per loading.

One novel use for this tacker is fastening the end of a ribbon to hold it in place after winding on

a spool or holder, eliminating the necessity for using pins.

The tacker front is narrow and goes in close spaces. Other models drive two-pointed staples, narrow or wide width, and are handy for assembly and shipping departments.

A. L. Hansen Mfg. Co., 5062 Ravenswood Ave., Chicago 40, Ill.

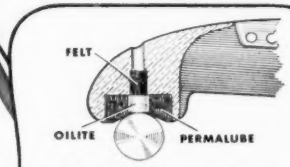
For additional data, request item B-112, using business reply card on page 252.

Film Tells Supervisors How to Get Things Done

A new sound filmstrip and record program for supervisory training, entitled "Straight from the Horse's Mouth," is the first of a planned series "Skill in Handling People." National Foreman's Institute, Inc., New London, Conn., publishers of the program which can be shown on any sound slide equipment, state that it concerns itself with "motivation" or how supervisors can get employees to do what management wants them to do. Program includes film and record, conference leader's outline, and 25 pamphlets for distribution so that viewers may more productively follow and retain the lessons taught.

● Better service at less cost...
WHITEHEAD Permalube SADDLES and NEBS

Whitehead Permalube Saddles and Nebs, of aluminum alloys, cost no more than old-fashioned iron ones, but they perform better and last a lot longer. Check the money saving, labor saving features of Permalube Saddles and Nebs. You'll understand why more and more mills are changing systematically to Whitehead Permalube products exclusively.



The Bearing That Oils Itself

While provisions are made for oiling the Permalube bearing, many mills find no oiling whatever is necessary. Several mills have been running Permalube Saddles and Nebs for three years without oiling. The advantages are obvious. No oil on the yarn, no sticking to break ends down, no labor to pay for oiling. New wide bearing design gives 50% more bearing area.

FEATURES THAT DEFY COMPARISON

- Years of trouble-free service
- Little or no oiling
- No oil on yarn from top rolls
- Less lint accumulation
- Easier picking—less often
- Very low friction coefficient
- Aluminum bearing holders won't score rolls
- Pivot point permanently adjusted
- Saddle self-aligning. No tilting
- Bearings quickly replaced if ever necessary for only 3c to 5c each

OVER 600,000 SPINDLES NOW EQUIPPED WITH THESE SELF-OILING PRODUCTS

Prompt delivery of any Saddles and Nebs from Ample Stocks

PATENTED AND MANUFACTURED BY
WHITEHEAD ENGINEERING CO.
522 WEST PEACHTREE STREET, N. W.
ATLANTA 3, GEORGIA

EXCLUSIVE DISTRIBUTORS
Meadows Manufacturing Co.
MURPHY & ASTOR AVES., S.W., ATLANTA, GA.

*SEE YOUR MEADOWS MAN
ALABAMA, GEORGIA, MISSISSIPPI
Sam Hogg, 1994 McConnell Dr., Decatur, Georgia
SOUTH CAROLINA
J. P. Coleman, Box 3597, Greenville, S. C.
NORTH CAROLINA
Walter Coleman, Box 782, Salisbury, N. C.
TENNESSEE
Ed F. Brown, 417 Dale Ave., Knoxville, Tenn.
NORTHERN REPRESENTATIVE
Matthews Equipment Co., 93A Broadway, Providence, R. I.

palatines
for wool

PALATINE FAST DYESTUFFS GIVE MORE PRODUCTION WITH LESS MANPOWER

. . . are fast to light, washing, perspiration, crocking, sea water and wear.

. . . are level dyeing on mixed wool and carbonized goods without neutralization—with excellent penetration. Most types are dischargeable with Rongalite.

. . . are particularly suitable for men's wear, dress goods, gabardines, tropical worsteds, cloakings, bathing suits, knitting yarns, carpet yarns and tops.

. . . on wool-nylon mixtures they produce good tone in tone dyeings of very good fastness to light and washing.

. . . samples of Palatine Fast Dyestuffs can be procured from our nearest sales office.

GENERAL DYESTUFF CORPORATION

435 HUDSON STREET · NEW YORK 14, NEW YORK

BOSTON · CHARLOTTE · CHICAGO · PHILADELPHIA · PORTLAND, ORE. · PROVIDENCE · SAN FRANCISCO

A TOP SPINS...

but it doesn't do any work

Ragan Rings do a job, and keep on doing it a long, long time—because they have a special hard, brilliant AERO finish. For spinning or twisting, standard sizes or specially designed rings, buy and stick to

Ragan Rings

RAGAN RING COMPANY, the only manufacturer of Textile Rings in the South, 866 Murphy Avenue, P. O. Box 174, Station A, Atlanta, Ga.
Representatives: John Foard, P. O. Box 574, Newton, N. C. • Arthur Harris, H. B. "Booch" Askew, 443 Stonewall St., S. W., Atlanta, Ga.
Henry Hersey, Dean Thomas, 44 Norwood Place, Greenville, S. C.

A Cloth Finisher Asks...

"What is its overfeeding range?
How fast will it operate?
Will it handle all types of fabrics? all weights? all finishes?
Is it equally effective on all colors? — all shades?
Is it completely adjustable?
Will it attach to my tenter frame?
Can I transfer it easily from frame to frame?
Does it operate on a new principle?"

Here are the Facts —

The M&W Positive Overfeed with Selvage Guider regulates overfeeding positively and uniformly from —5% to +30% for all fabrics — any weight or finish — at speeds up to 100 yds. per minute. A simple turn of the wheel changes amount of overfeeding.

Pinning of each selvage on the tenter chain is adjustable, can be held within 1/16" tolerance. A photo-electric cell engages selvage — *instantaneously* corrects sidewise variations, is adjustable to react with equal efficiency to all shades and weights of fabric.

This all-ways adjustable unit attaches to practically all existing tenter frames (when equipped with M&W pin type tenter chains), is easily transferred from one frame to another.

On an important new principle, guider arm brings cloth to meet the rails instead of rails to meet the cloth — gives you greatly increased speed and accuracy by moving ounces of aluminum instead of hundreds of pounds of cast iron.

Send for bulletin — free on request.

This device is manufactured exclusively in the U.S.A. under license from John Dalglish & Sons Limited of Thornliebank, Glasgow. Have us estimate the advantages of installation for *your* plant. Get our prompt cost-cutting counsel without obligation.

M&W

MARSHALL and WILLIAMS CORPORATION
PROVIDENCE, R. I. • GREENVILLE, S. C. • NEW YORK, N. Y.

News in Brief

(Continued from page 93)

of this highest level. The total export of raw silk in 1935 was 554,900 bales; the export to the U. S. was 467,200 bales, which represented 84.2 per cent of the total export.

French Combing Renaissance. French and Italian-made combs are being bought by American mills. The resurgent interest in French combing stems from the fact that the comb is particularly suitable for handling short staple wools. Such wools are cheaper and in better supply, and short staples blend well with synthetics.

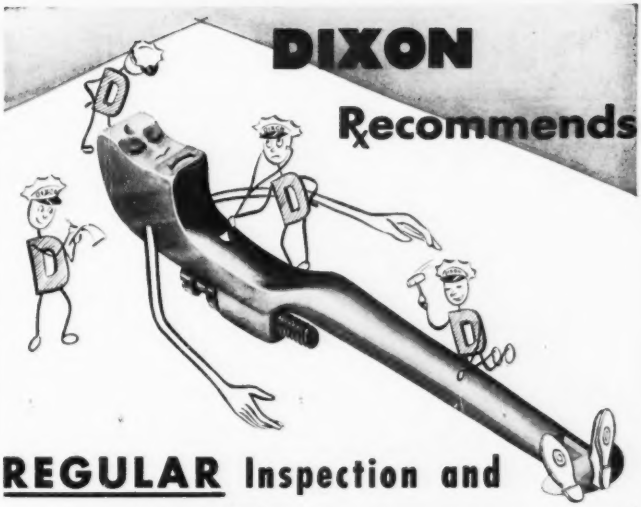
Vat Dyed Wool Pieces for Armed Forces. The Army wants vat dyed wool cloth (probably as a counter measure against infra-red detection) but is reluctant to accept piece dyed goods. Very few mills are equipped for stock dyeing wools with vat colors. However, some pieces have been successfully vat dyed in the new green shade in trial lots. Many mills emphatically state that a switch to the proposed green can be made overnight. Now, it's up to the Army.

Italian Industry in Australia? According to reports in the Italian paper "Il Globo," representatives of the Italian silk industry are investigating the possibility of founding a silk industry in Australia. Plans call for Japanese raw silk and Italian labor to be used in the mills.

"Equal Pay for Equal Work" Approved. The Wage Stabilization Board has unanimously adopted a resolution providing for equal pay for equal work. The resolution was described as being in line with the Board's policy of fostering maximum defense production and promoting sound working relations.

Nylon Stockings Smuggled Into Belgium. During recent years nylon stockings have been smuggled from the U. S. A. into various European countries on a large

DIXON Recommends



REGULAR Inspection and PLANNED Replacement of Worn Saddles

Institute a program of inspecting each frame twice a year. Worn saddles, like travelers, must be replaced on a regular schedule. Mills report these:

Proven Advantages

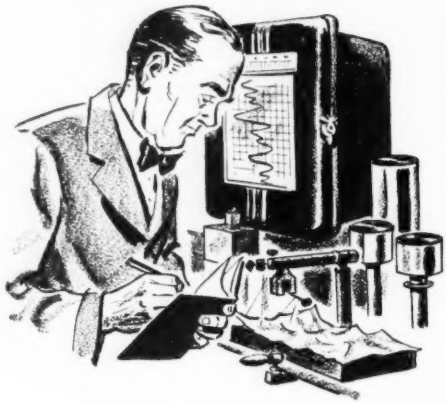
- ✓The program pays for itself
- ✓Yarn imperfections are reduced, efficiency increased
- ✓Newest type saddles gradually replace less efficient models
- ✓Incorrect saddles, faulty weighting installations are eliminated
- ✓Spinning frames are rejuvenated without extensive shut-downs
- ✓Damaged top rolls eliminated
- ✓Maintenance costs are lowered

Ask how the newest Dixon saddles fit into a regular replacement schedule.

DIXON LUBRICATING SADDLE CO.
Established 1876 BRISTOL, R. I.

Southern Sales: R. E. L. Holt, Jr. & Associates, Box 1474, Greensboro, N. C. Covering the Carolinas and Virginia
J. W. Davis, Mfg'rs. Agent, Box 745, Columbus, Ga. Covering Georgia, Alabama, Mississippi, Louisiana and Tennessee
Northern Sales: W. R. Potter, Sales Manager, Dixon Lubricating Saddle Co., Bristol, R. I. Covering New England

FIBER FARE... from Du Pont



How research wars on WRINKLES

How well a fabric resists wrinkling—and how easily the wrinkles "hang out" in a closet—are determined by this wrinkle-tester in the Du Pont Fiber Research Laboratory. Here, the fabric gets wrinkled under compression by weights, and a sensitive probe measures every wrinkle and records it on a graph. The machine helps scientists in their step-by-step check on fiber developments.

..."Dacron" helps to fight it faster!

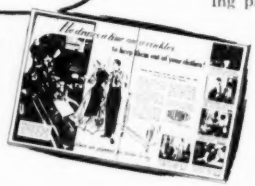
Fire hose re-enforced with "Dacron" polyester fiber is light in weight, so firemen find it more maneuverable—faster to work with. 40 per cent more hose fits on a fire truck without increasing the load. Important, too . . . the "Dacron" content adds new resistance to stretching.

FOR MODERN LIFE... MODERN FIBERS!

Population increases; incomes improve; the standard of living gets better. New inventions advance man's way of life. Aviation calls for apparel that is light and fashionable; air conditioning makes "year-round" clothing practical; the automobile sparks the development of tougher upholstery materials. So more fabrics are made of man-made fibers to meet these needs!

NEW STOPPERS FOR SHOPPERS

The consumer finds facts about man-made fibers in big-space ads like these, appearing soon in national magazines. Starting with an interesting "stopper" about research or manufacturing processes, the ads include specific information about each of the five Du Pont fibers.



Give her the fiber facts on blends!

Blending man-made fibers in fabrics makes more fabrics for specific uses. Be sure the shopper knows when man-made fibers make a garment last longer, or look better, or resist shrinkage. Help today's fiber-curious shopper by knowing the fiber facts on every blended fabric you carry . . . and tell all of your salespeople so they can pass the selling word along.

NYLON
ACETATE
ORLON* acrylic fiber
RAYON
DACRON* polyester fiber
*DU PONT TRADE MARKS

Textile Fibers Department, E. I. du Pont de Nemours & Co. (Inc.), Wilmington, Del.

Du Pont makes only the fibers—not the fabrics or finished products shown.

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING. . . THROUGH CHEMISTRY

DU PONT FIBERS ARE PLANNED FOR BETTER LIVING

scale. It has been estimated that from 1949 to the middle of 1951, nylon stockings to a retail value of 500,000 Belgian francs were smuggled into Belgium.

U. S. statistics showed that for 1949, 742,000 dozen pairs of nylon stockings were exported to Belgium, while Belgium import statistics only showed an importation of 237,000 dozen pairs. In 1950, the Belgian statistics showed an importation of only 51,000 dozen pairs, whereas the U. S. figures were 473,000 dozen pairs!

Not only have the smugglers managed to import vast quantities of nylon stockings from the U. S. A., but they have also managed to obtain the dollars to purchase them in the U. S. A.

Another Case History

(*Continued from page* 193)

were employed to operate this machinery. This has led to a good deal of dissatisfaction on the part of many of the stockholders, who feel that it is bad enough to throw away their money on poorly designed and inefficient equipment, but far worse to hire a bunch of alien engineers to operate it for the production of noxious commodities, injurious to the health and well being of the people.

The stockholders are to vote this year for very nearly a complete Board of Directors, and must also elect a President of the concern. The present President has vigorously defended the installation of all of this foreign machinery, although the Board of Directors has taken a rather dim view of some of it, and has repeatedly refused to approve the purchase of some of the more radical designs desired by the President.

The stockholders have a very profound interest in selecting a capable management for the difficult times ahead. A plant full of cheap foreign machinery, turning out a product attractive in appearance but of little if any intrinsic value, may easily find itself in financial difficulties from a market glutted with showy, but unsatisfactory merchandise.

Control Costs with TOLEDO

On your scale material becomes money!

PRINTWEIGH STOPS ERRORS . . . Provides printed weight records—at the instant of weighing—assuring that the accurate indication of the Toledo dial will reach your accounting records without chance of human error.

Modern Toledos meet your needs today for *rapid, accurate* scales in all phases of production . . . to help you *control costs!*

These are the scales backed by Toledo's half-century of experience in Research and Engineering that has produced 80% of the major advances in scales during this time.

Toledo engineering has not only specialized in the direct design of weighing machine mechanisms, but also in the many associated fields such as electronics, plastics, metallurgy, optics.

Check your needs *now*—select Toledo equipment for vital jobs in guarding materials and costs! Sales and service in 200 cities. Toledo Scale Company, Toledo 1, Ohio. We will be very glad to send catalogs.

NEW!
FLOOR SCALES
New recessed frame design fully guards against foreign material lodging beneath platform edge—choice of full or semi frame, with economical conversion for future needs. Double parallel link platform suspension means long life, accurate dependability. Send for bulletin 2406C.

TOLEDO

HEADQUARTERS FOR SCALES

Brand New

PATENT PENDING

Completely new method of manufacture, at new low price. Various styles.

CLEANDRAFT
Non-lubricating Top Rolls for Back and Middle Lines*

- **eliminate all lubricating effort.**
- **give much cleaner yarn, due to complete freedom from lubricant.**
- **reduce picking and cleaning.**
- **simple to install.**

Low First Cost — Substantial Savings — INVESTIGATE

*Not for front line use.

CLEANDRAFT Non-lubricating Top Rolls are made for back and middle lines of all standard and long draft cotton Spinning Systems.

For complete information, write

INDUSTRIAL PLASTICS, INC.

21 VERNON STREET, WHITMAN, MASS.

Northern Sales:
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P. O. Box 428
Whitman, Mass.

Southern Sales:
Watson and Desmond
P. O. Box 1954
Charlotte, N. C.

Southern Service Office:
Box 1863
Spartanburg, S. C.

Belgium:
Firme Paul Pflieger
158 Chaussee de Courtrai
Ghent, Belgium

Peru:
William Crosby & Sons, S.A.
P. O. Box 2326
Lima, Peru

France:
Thoma & Compagnie
21 Rue de la Chapelle
Paris 18e, France

Canada:
Kingstan Industries
432 Ontario St., West
Montreal 2, Canada

For European Service:
Victor Beecroft
54 Boroughgate
Otley, Yorkshire, England

Textile Industries

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FEBRUARY, 1952

John C. Fonville
Editor

ASSOCIATES

J. Frank Guest — Hunter Hughes, P. O. Box 968, Rock Hill, S. C.
Milton C. May — Paul M. Platzman, 22 Ridge Drive East, Flower Hill, Roslyn, N. Y.
H. B. Anderson

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SELLING ain't what it used to be

IF THERE is anything a salesman had rather do than sell, it's to sell some more.

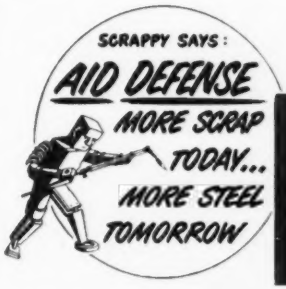
But in these mixed-up days of steel shortages, it's not a matter of selling, or even order taking.

Our salesmen are devoting their time attempting to untangle various government regulations for our customers; helping customers arrive at suitable substitute steels; advising them on availabilities; helping make allocations on a fair and equitable basis.

They are trying their best to keep the customer satisfied—as satisfied as one can be under the conditions—because we hang onto the idea that it will pay off in the long run.

Just remember—your Atlantic Steel Company Warehouse Division salesman is anxious to help you.

Our Warehouse Division is guided by the same business principles which have carried Atlantic Steel Company through fifty years of progress.



WAREHOUSE DIVISION
Atlantic Steel Company
ATLANTA, GEORGIA • EMERSON 3451

Add new life to Hosiery Sales

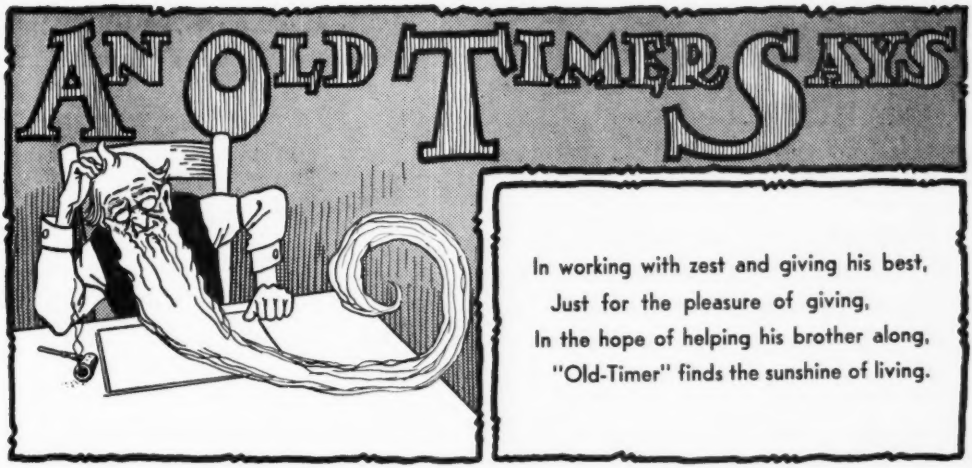
Here's a combination that means more profit for hosiery manufacturers. The new Filaseal System contains a resin finish, a dulling agent, an exhausting agent and a wax lubricant—all applied in one bath after the dye is dropped. The results are added snag and pull resistance and the kind of sleek, lovely fabric that hosiery buyers look for.

We want you to see the results of the new Filaseal System on your hosiery. Without obligation, we will send an Amalgamated Representative into any mill located near either of our headquarters with enough Filaseal to finish 50 dozen or more stockings. Or, if you prefer, we will finish sample lots of hosiery sent us in the greige.

Hosiery Finishes are just one of our products. We offer a complete line of Fabric Finishes, Dyeing Assistants and Scouring Agents plus the services of Field Representatives who are experienced textile chemists. Our modern, fully equipped research and production laboratories are at your service for bigger profits through better fabrics. Write or call us today.

AMALGAMATED CHEMICAL CORP., Phila. 34, Pa.
Southern Division: 1819 Spring Garden Street, Greensboro, N. C.

Amalgamated


AN OLD TIMER SAYS
In working with zest and giving his best,
Just for the pleasure of giving,
In the hope of helping his brother along,
"Old-Timer" finds the sunshine of living.

Random Thoughts

That Overworked Brain

NEWSPAPER headline: He committed suicide, caused by an overworked brain. Rubbish—nonsensical—or just a darn fool statement. You cannot overwork a brain by putting knowledge into it. In fact, the more you put in a brain the larger it gets. There is nothing else in the world like that.

For example, if you study all the information available about opening, picking and carding—then study everything you possibly can get your hands on about spinning and weaving, your brain will be in better shape to study designing than if you had never studied anything about carding, spinning, or weaving.

Oh! You say those studies are preliminaries to studying designing. Yes, weaving is, but not necessarily spinning and carding. But the point OLD-TIMER wants to get into your "noggin" is that the more knowledge you put into that brain of yours the more receptive it is to more knowledge. And, too, the more knowledge you acquire—the more pleasure you will derive from obtaining more knowledge.

We are told that few people liked beer the first time they tasted it, but acquired the taste after drinking it several times. So it may be with you about acquiring knowledge—you may think it a bore, something you will have to make yourself do, but after you begin to see what a wonderful new life it will open up to you and how you will improve your personality and ability as a textile operating executive—well, OLD-TIMER won't have to beg you any more to start. In fact no one can stop you.

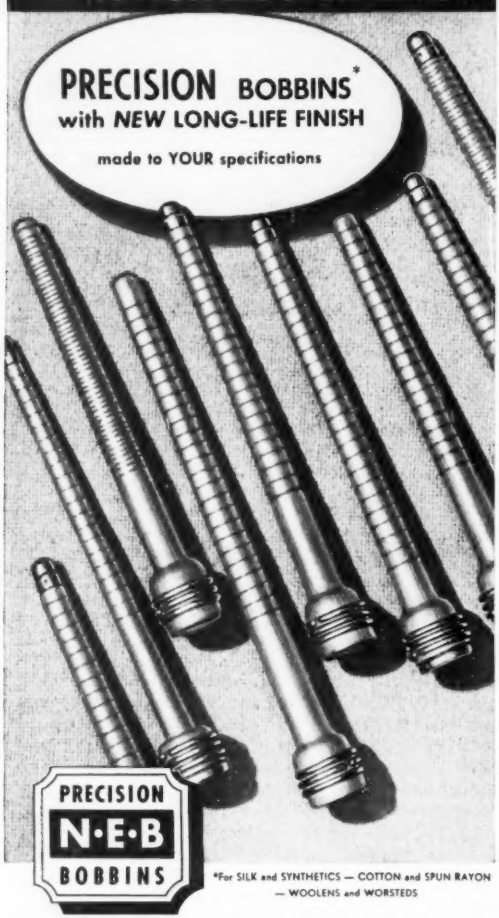
Increase Vocabulary; Improve Personality

TO INCREASE the number of words in your vocabulary is your surest way of increasing your chances of improving your personality, of increasing your ability to carry your point in committee meetings, of making your conversation more convincing to your boss or to your employees; yet it is so simple and so easy to accomplish, that very few people take advantage of the system of increasing vocabulary which OLD-TIMER has found so helpful.

If you would only carry a small vest pocket notebook and make a note of each word you see, in your daily paper or in any reading, that you do not know the meaning of, then study these words every day until they are firmly fixed in your mind, you will be surprised someday when you realize you have used a word or words in your conversation which you have never used before. Then you will be on your way to building up a vocabulary which will mark you as an educated man.

Precisioned to Size — Precisioned for Concentricity
Precisioned for YOUR Spindles . . .

For COTTON and SPUN RAYON



*For SILK and SYNTHETICS — COTTON and SPUN RAYON — WOOLENS and WORSTEDS

Every NEW ENGLAND BOBBIN is tested for concentricity; for smooth, vibrationless running at high speed; to reduce spindle wear. The smooth New LONG-LIFE Finish developed by New England Bobbin & Shuttle Co. withstands heat up to 125°, chemicals in detergents, hard and continuous use. Lasts longer than conventional finishes. Include NEBs in your next requisition — your next order — and compare!

NEW ENGLAND BOBBIN & SHUTTLE CO.

Makers of PRECISION *Automatic Loom Bobbins*

NASHUA, NEW HAMPSHIRE

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THE YEARS HAVE PROVEN THEIR QUALITY!

OSA

S. A. Officina Meccanica

SANT' ANDREA

NOVARA, ITALY

The new synthetic fibres will reach the retail market in large quantities in 1952, and the consumer will be the final judge of their suitability and quality.

At this point, not only the physical properties of the new fibres, but also the machinery used in the mills are on trial.

The SANT' ANDREA system incorporates long experience in the manufacture of machines for long staple fibres, and the know-how gained in many installations, here and abroad. And, whenever Sant' Andrea machines are honestly tested and compared with other machines on the market, they find preference due to their superior construction and performance.

Call on us for your machinery requirements for processing wool and long staple synthetics.

- *prompt service*
- *early delivery*
- *qualified technical personnel*

Agents for U.S.A. and Canada

ERNEST L. FRANKL ASSOCIATES

22 East 40th Street, New York

Personal NOTES

ABOUT MEN YOU KNOW

The Office of Price Stabilization has announced the appointment of **William H. Entwhistle,** retired from the former Entwhistle Manufacturing Co., as a textile consultant in the Consumer Soft Goods Division.

Dr. Dorothy Thompson, now on sabbatical leave from Sweet Briar College, where she is associate professor of chemistry, is engaged in research at the Institute of Textile Technology.

Fred D. Snyder, application engineer of Westinghouse Electric Corp., has been elected chairman of the textile division, American Society of Mechanical Engineers, succeeding R. O. Palmer of Carlyle Johnson Machine Co.

James T. Wardlaw, after twenty years service—eighteen as treasurer, has retired from Drayton Mills, Spartanburg, S. C. He is succeeded by Alan B. Sibley, vice-president and general manager of a number of other mills of the Deering, Milliken group.

New chairman of the dyed yarn division of the Carded Yarn Association, Inc., is **J. Curtis Jordan, Jr.,** president of Jordan Mills, Inc., Columbus, Ga. Mr. Jordan succeeds G. P. Barnwell of Bibb Manufacturing Co.

Chicopee Manufacturing Corp. has announced the election of **G. C. Riegger** as vice-president and treasurer, and **W. C. Chester** as controller, of the organization.

Succeeding Harry J. Devereaux, **J. Byron Wilson** of McKinley, Wyoming, was recently elected president of the American Wool Council. Mr. Wilson has been vice-president of the organization since its inception ten years ago.

John A. Korschen has retired as vice-president and general manager of Chipman Knitting Mills, Easton, Pa. Succeeding him as general manager is **John F. Michler,** a vice-president of the firm.

B. F. Anderson was recently made personnel director of the Fairfax (Ala.) mill of West Point Manufacturing Co. He succeeds **A. T. Hanson,** now director of the Department of Insurance and Safety of the company.

John M. Merriman has been appointed to the newly created position of executive secretary of the Textile Technical Federation of Canada.

The following new vice-presidents were elected to the American Association of Textile Chemists and Colorists, each representing a region of the country: **Raymond W. Jacoby,** Ciba Co., Inc., Providence, R. I., for New England; **Arthur W. Etchells,** Hellwig Dyeing Corp., Philadelphia, for the Central Atlantic region; **Samuel L. Hayes,** Charlotte, N. C., office of Ciba Co., for the southern region; and for the western area,

Now IS THE TIME ...
TO CONDITION YOUR MILL FOR Summer Comfort
Comfortable workers are more efficient. Removal of heat, dust, fumes, and impurities are a "must" in up-to-date textile mills. Ventilation alone, spot cooling, or a combination of both can solve your particular comfort problem.
EVACUATION VENTILATING
Adequate exhaust at high wall levels or via roof evacuate the hot trapped air in your mill—as below.
SPOT MAN-COOLING
Particular work areas may require spot cooling via direct or portable ventilating fan units. See diagram below.
Murray
INDUSTRIAL FANS
Murray Industrial Fans of rugged, heavy duty construction, yet with the built-in Murray "Whisper-quiet" operation are in 7 sizes and power ratios. Write for information to...
INSTALL A Murray BREEZE CONDITIONING SYSTEM
Murray COMPANY OF TEXAS
INDUSTRIAL VENTILATING FANS
H. C. BIGLIN CO., INC.
177 HARRIS STREET, N. W.
ATLANTA, GEORGIA

TANNER TEXTILE CHEMICALS

VERSENE FE 3 Specific*
Most powerful iron complexing agent known in normal pH range.
VERSENE*
Most efficient general complexing agent. Softens water completely and permanently without precipitation.
• • THE Versenes
STRONG CAUSTICS
VERSENE T*
Prevents and removes iron deposits from fabric treated with concentrated caustic.
VERSENE FE 3*
Prevents hard water deposits and iron stains.

VERSENES AND TEXTILES

The Chas. S. Tanner Company, as Southern Agents for the Bersworth Chemical Co., now offers you the Versenes in the South. By controlling metallic contamination, these most modern of chemicals give *cleaner* fibres, *softer* woolens and visibly *whiter* cottons. Among other things, they completely soften hardest water without precipitation.

OTHER TANNER CHEMICALS

Suedex Series.
These Resin Emulsions are semi permanent and easy to use in process finishing. Color yield is excellent and they give varying degrees of stiffness, fullness and finish on broadcloth and cottons of 80 squares.

Crystal Film.
These are Co-polymer type resins. They give beautiful transparent finishes. There are four types. Similar to Suedex in function but are used where even finer finishes are desired.

Ether Gum Binder.
For all types of clay or talc fillers for cotton goods. Non-yellowing properties.

Tantex A and Tantex B.
The *Durable* Type Water Repellent. Cottons treated the single bath Tantex way will retain their repellency for 3 washings or 3 dry cleanings. It will pay to investigate.

CST Gum No. 5.
A weighter type material. Used as a finish but imparts much weight to the fabric.

Tanamine Series of Softeners.
This is a complete line of cationic, anionic and nonionic softeners.

*T.M. Bersworth Chemical Co.

CHAS. S. **TANNER CO.** *manufacturing chemists*
1815 LIBERTY LIFE BLDG. CHARLOTTE, NORTH CAROLINA
Home Office: Providence, Rhode Island

Shafer ConCaVex Bearings have the design and construction features that keep them free-rolling, self-aligning and self-centering under *all* operating conditions at *all* times—without additional weight or size, without shoulders, without auxiliary means of absorbing thrust.

With Shafers you get stamina and performance advantages exceeded by none: Capacity for radial, thrust or any combined radial-thrust loads • High shock load capacity with low friction • Integral self-alignment within the bearing itself • Exclusive Micro-Lock for quick, simple bearing adjustment • Exclusive, self-centering "Z" Type Housing Seal • Compact sturdiness combined with the original Shafer ConCaVex design which has answered industry's every dependability need for more than 32 years. Complete engineering service for the asking. SHAFER BEARING CORPORATION, 801 Burlington Ave., Downers Grove, Ill.

Ask for new Industrial Bearing Catalog No. 51.

SHAFER CONCAVEX

Pillow Blocks • Flange Units • Cartridge Units • Flange Cartridge Units • Duplex Units • Take-Up Units • Take-Up and Frame Units • Unmounted Bearings • Aircraft Control Bearings.

Why Best Results Are Not Obtained from Water Repellent Products

Failure to obtain the best possible results from water repellent products can often be traced to three main sources of trouble:

(1) Improper preparation of the fabric prior to treatment. Fabrics should be as free as possible of all sizing and finishing agents prior to treatment, but residual chemicals remaining from the previous processing and dyeing operations may also cause serious trouble.

By far the most common culprit is alkali.

Practically all of the non-durable repellents and the majority of the durable repellents are acidic products or are applied from acidic baths. Alkalies remaining in the fabric as a result of insufficient rinsing will either break the bath by neutralizing it, or produce a local reaction on the fabric during the padding operation which will adversely influence the end result.

The latter effect is particularly objectionable in the case of durable repellents which are applied on the acid side. In other words, if you want to obtain the highest possible value from any particular water repellent, do not attempt to pad an alkaline fabric through an acidic impregnation bath, or an acidic fabric through an alkaline impregnation bath.

(2) Insufficient or improper impregnation of the fabric. Unless the treating bath is enabled to penetrate completely into the fabric, the best results will not be obtained. This is particularly important with the durable repellents where incomplete penetration results in poor durability. Consequently, wherever possible employ a padding mangle which will completely wet out the fabric.

The use of surface active agents may be employed with durable repellents which are washed or rinsed after the subsequent curing step. However, the use of surface active agents is not practical in the case of non-durable repellents which are not rinsed or washed after the drying step following padding.

The surface active agent remaining in the treated fabric will seriously counteract the proofing power of the water repellent agent.

(3) Most finishing agents applied along with the water repellent agent (to modify hand of fabric) will lower the repellency. Such common materials as dextrins and starches are not in themselves water repellent. Consequently, they dilute the effect of the water repellent agent.

Even more serious lowering of the repellency is produced by softening agents, most of which are more or less surface active. Particular care should be exercised in choosing materials to modify the normal hand produced by any particular water repellent.

Extract from address by George A. Slowinske, Fine Chemicals Div., DuPont, before Southeastern Section, AATCC, LaGrange, Ga., Dec. 8, 1951.

Arthur T. Brainerd of Ciba Co.'s Chicago office. **C. Norris Rabold** was re-elected national president of the organization.

Deering, Milliken & Co. has announced the election of **Waldemar R. Kuenzel** as vice-president in charge of fabric development and **Gerrish H. Milliken, Jr.,** as vice-president in charge of "Orlon" fabric sales.

John Cunningham has been made manager of operations and **Edmund S. Lamont,** sales engineer for the Products Division of Alexander Smith, Inc., a division created last year for development and marketing of new products and processes. Another announcement from the company concerned the retirement of **Harold C. Zulauf,** vice-president industrial relations, and **Maitland L. Griggs,** vice-president special services.

Quaker Meadows Mills, Hilderbran, N. C., has announced the election as president of **Wade H. Shuford.** Other offices elected at the annual board meeting were **Horace Lutz, Sr.,** vice-president; **B. B. Blackwelder, Sr.,**

This new FIDELITY Skein Reeler permits each operator to handle four or more machines . . . a control automatically shuts off each machine when the predetermined skein weight has been reached. Machine down time is reduced by from 50 to 90%, and labor efficiency is correspondingly increased. Compact, modern design streamlines your plant and provides the answer to lower manufacturing costs to meet competition.

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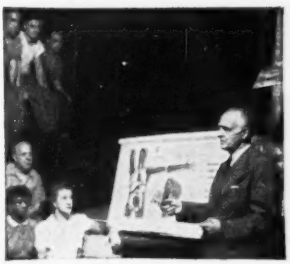

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MOISTURE
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in wool, cotton, rayon and nylon

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QUICK, ACCURATE READINGS

In less than 3 seconds you can test moisture content of practically all types of textile materials, including cotton, wool, rayon and nylon in fabrics, packages and loose forms.

This portable instrument is designed for "on the spot" checks in your plant. Moisture Register is easy to operate—requires no technical knowledge or complicated figuring. Cost is negligible in comparison to advantages. Write today for complete details. Specify type of material to be tested.

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ELECTRONIC MOISTURE REGISTER
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Personal NOTES ABOUT MEN YOU KNOW

treasurer; **Miss Margaret Newton,** secretary, and **B. B. Blackwelder, Jr.,** assistant secretary.

Bernard Lowery was recently promoted from twister section man to shift supervisor in the Stark Mill of U. S. Rubber Co., Hogansville, Ga.

At a recent meeting of the firm's board of directors, **Robert D. Pietrafesa** was elected a director of the Utica Knitting Co. Mr. Pietrafesa is assistant to the president of Joseph J. Pietrafesa Co., Inc., Syracuse, N. Y.

W. M. Kirby, Jr., formerly with Clinton (S.C.) Cotton Mills, is now assistant superintendent at Wade Manufacturing Co., Wadesboro, N. C.

West Point (Ga.) Manufacturing Co. has announced the election of **William W. Wolbach** as chairman of the board of directors, succeeding Carleton R. Richmond, resigned. All officers were re-elected.

W. J. Leath has assumed the duties of general manager of production for Chadbourn Hosiery Mills and the company's subsidiaries. He is now headquartered in Charlotte, N. C.

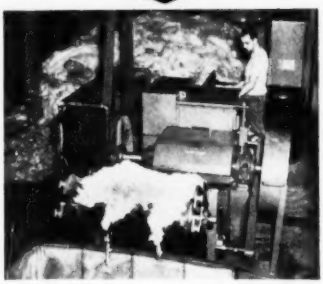
Peerless Spinning Corp. has announced the election of **R. B. Groves** as a vice-president. **L. H. Heck** has been added to the board of directors. All other officers were re-elected.

Davenport Hosiery Mills, Inc., Chattanooga, Tenn., has announced the election of **J. Tally Johnston** as president and general manager. Mr. Johnston succeeds Joe H. Davenport, retired.

Joseph L. Lanier, president of West Point Manufacturing Co., was recently re-elected president of Dixie Mills, Inc., and **B. W. Whorton** was named vice-president. **Elwyn G. Preston, Jr.,** treasurer of West Point, was elected treasurer of Dixie Mills; **T. Scott Avary,** assistant treasurer; **Edward C. Hunt,** secretary, and **Gaius R. Sampson,** assistant secretary.

Charles I. Tidwell was recently appointed assistant general manager of the Dunean Mills, Greenville, S. C., and Watts Mills, Laurens, S. C. **C. J. Pride** succeeded Mr. Tidwell as

Do You Cut
Thread
WASTE?
STAPLE?
RAGS?



Taylor-Stiles Cutters cut any fiber in rove, sliver, or continuous filament into uniform lengths. Easy, quick changes in length can be made by a single adjustment.

Other machines for cutting wool rags and garments into small pieces; for cutting hard-wound wool strippings and string waste into useable fiber. Also tangled waste before garnetting.

If you do cutting of any kind, a Taylor-Stiles machine offers efficiency plus top performance under all conditions of use.

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manager of the Dunean plant. At the Watts Mills, several promotions in the weave room were announced. **John W. Todd** was promoted to superintendent of weaving, slashing, and drawing-in; **Luther L. McCall** succeeded Mr. Todd as general overseer of weave room No. 2; and in turn was replaced as third shift overseer by **Earl E. Jennings; Charles Williams** and **Paul B. Brewington** were made assistant overseers of third shift in weave room No. 2; **Willie E. Landrum** was promoted to assistant overseer on the first shift; and **Jesse L. Swink** was made assistant overseer on the second shift.

James Varcadipane, formerly boss finisher at Grant Dyeing and Finishing Corp., Paterson, N. J., has joined Peak Finishing Corp., in a similar capacity.

Previously with Colgate Piece Dye Works, Hawthorne, N. J., **Herbert Luber** is now with Hendor Mills, Paterson, N. J., in an executive capacity.

Albert H. Riddell has joined the Bristol, R. I., plant of Collins & Aikman Corp., as assistant general manager. He was succeeded at Arlington Mills, Lawrence, Mass., by **George S. Orr.**

Ed Lipscomb of the National Cotton Council was recently elected president of the Public Relations Society of America.

Peter F. Donohue has succeeded **George Bienstock,** resigned, as manager of the fine worsteds department of American Woolen Co.

The Dunean group of J. P. Stevens & Co., Inc., has announced the appointment of **T. B. Jackson** as manager of the Aragon plant of Aragon Baldwin Mills and Industrial Cotton Mills Division. Mr. Jackson will continue as assistant secretary of the firm. **P. Jennings White,** overseer of carding at Dunean Mills, Greenville, S. C., has been named superintendent of the Greer (S. C.) plant.

Following the recent death of Hugo Hemmerich, a number of personnel changes have been made at Berkshire Knitting Mills. **John W. Bowman** has been appointed vice-president in charge of manufacturing, and will continue as treasurer. **William C. Brenner,** previously superintendent, has been named assistant to Mr. Bowman. **Robert G. Ohlinger** has been made superintendent of plant engineering; **William E. Sheeler,** superintendent in charge of production machinery; and **Hans Halbach,** superintendent of planning.

Alex McCance, recently with Phoenix Hosiery Mills, has been appointed general superintendent of Nolde & Horst Co., Reading, Pa.

Leo W. Rainard, formerly assistant director, has been appointed director of research for Alexander Smith, Inc.

Mr. Rainard

He succeeds A. Griffin Ashcroft, now vice-president in charge of research and development.

An honorary degree in Phi Psi Fraternity was recently awarded **Fred C. Scholler,** president of the Philadelphia Textile Institute Foundation.

General chairman of the 121st national meeting of the American Chemical Society, to be held in Buffalo in March, will be **Dr. Hans O. Kauffmann,** director of research and development of the Buffalo Electro-Chemical Co., Inc.

J. R. Timmerman, with Burlington Mills for six years, has resigned. His position as superintendent of the Modena unit, Gastonia, N. C., has been taken over by **Ray Rogers,** also superintendent of the Ranlo unit.

John A. Simmons has been elected president of Lanett Bleachery & Dye Works, succeeding **J. L. Lanier,** now chairman of the board. **A. O. Benton,** former superintendent, is now vice-president.

S. Scott Stewart, formerly with the Florence Thread Co., is now vice-president and general manager of Rose Mills, Inc.

Thurber H. Bierce has been elected to the combined offices of secretary-treasurer of Dan River Mills, Inc. **Norman Waugh,** formerly secretary, will serve as assistant to Mr. Bierce.

J. M. Bailey was recently named general manager of Judson Mills, Greenville, S. C. **Alfred G. New** suc-

RUGGED in design . . . LIGHT in weight!
MILTON GIVES YOU TRUE DIMENSIONAL STABILITY without objectionable deflection or distortion!
it takes GOOD BEAMS to make good warps!
PROVEN IN SERVICE
warping unprecedented yardages of monofilament; fine denier, low turn nylon; and rubber yarns
WITHSTAND EXCESSIVE PRESSURES
MILTON NYLON & RUBBER TRICOT BEAM
Forged, heat-treated aluminum alloy heads and barrels permanently joined with continuous heliarc welds.
THERE'S A MILTON BEAM FOR EVERY APPLICATION . . .
permanent mold TRICOT BEAMS
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MILTON MACHINE WORKS, Inc.
DESIGNERS – ENGINEERS – MANUFACTURERS
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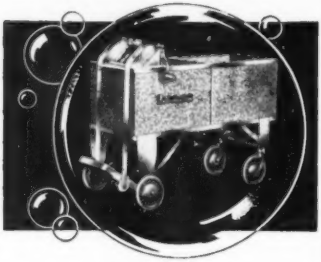
LAWLOR MOPPING TANKS



Lead the Field in RUGGEDNESS and SERVICE

8 styles and sizes of all steel, acetylene welded tanks • 2 or 3 compartments • 30, 60 or 65 gallon capacities • Hand or foot pressure wringers • Perforated roll wringers • Special drain shut-offs • Hot dipped, galvanized chassis and frames • Rubber tired, cadmium plated steel wheels.

LAWLOR MOP WRINGERS

Copied but never Duplicated!

EASIEST turning wringer made: there are bearings at ends of rollers.

EASY to bring rolls together: foot lever is perfectly balanced.

EASY to move wringer: self-adjusting front casters raise metal feet from floor when you're ready to go.

The LAWLOR No. 2 accommodates any standard round, galvanized pail up to 16-quart capacity. Net weight of wringer—23 pounds.

LAWLOR No. 6 TWIN is like the No. 2 Wringer in general construction, but accommodates two pails.

Write for Catalog of Mopping Tanks, Wringers, Floor Scrub Wax-Polishing Machines for every kind and size floor.

S. C. LAWLOR CO.

Quality Floor Equipment for 50 Years

121 N. Aberdeen St., Chicago 7, Ill.

Personal NOTES ABOUT MEN YOU KNOW

ceeded J. C. Clark, retired, as superintendent.

Frank E. Masland, Jr., president of C. H. Masland & Sons, was re-elected chairman of the Board of Trustees of the Carpet Institute, Inc. Three new members were added to the board: **Herbert Doerr,** president, Philadelphia Carpet Co.; **Harold Wadely,** president, Firth Carpet Co.; and **Walter G. Campbell,** president, Hardwick & Magee Co.

The North Carolina Recreation Society has announced the election of **Ed. Y. Sweet,** assistant director of recreation at Mooresville Mills, as chairman of the industrial division. He succeeds G. M. Matlack of the Cramerton division of Burlington Mills. **Ralph Johnson** of Firestone Mills, Gastonia, N. C., was made assistant chairman.

Robert J. Demartini has left General Electric to become chief development engineer at F. C. Huyck & Sons, Renssalaer, N. Y.

Robert W. Lawson has been made plant manager of the Gainesville, Ga., mill of Chicopee Manufacturing Corp. of Ga. **L. Denton Hadaway** succeeds Mr. Lawson as mill superintendent, with **Wilbur Otey** taking Mr. Hadaway's place as head of the standards department.

Sidney Paine, Sigmund Sternberger, Maurice Hendrick, and **James R. Young,** officials of Cone Mills Corp., have announced their retirement. Mr. Paine and Mr. Sternberger will continue to serve on the board of directors. New vice-presidents elected by the board are: **James Webb, Henry G. Nichols,** and **Claude S. Morris.** All three are directors of the corporation.

David L. Jones, formerly with Fieldcrest Mills, Inc., has joined Pacific Mills' industrial fabric division as a sales representative.

James Webb, president of Eno Cotton Mills, Hillsboro, N. C., a subsidiary of Cone Mills Corp., is now also in charge of the Tabardrey Plant, Haw River, N. C.

M. Brandon Payne has been made assistant production manager of Cannon Mills Co., and **D. Ray McEachern, Jr.,** has replaced him as general superintendent of four of the firm's plants. **Freeman Johnson,**

To the Man Who Buys CASTERS

Compare the WIL-MAT Caster with any other. Here are some of its advantages.

30% to 40% More Tread
This heavy drawn sheet steel tread means far longer service and reduced costs.

Smooth-as-Silk Tread
Will not harm maple floors. Its curved chip-proof bevel cannot wear to a sharp edge.

Grease-Resist Surface
Will not pick up grease, oil, or grime and track it over your floors.

Super-Smooth Action
Heavy steel ball bearings, in thrust-type hardened natural raceways, make this the smoothest rolling caster on the market.

Great Strength
Heavy and accurately machined parts give the WIL-MAT Caster exceptional strength as well as smooth action.

Compare the WIL-MAT Caster with any other and you, too, will join the many mills which are now using WIL-MATS exclusively.

And They Won't Clog Up

WIL-MAT Ball Bearing Swivel and Rigid Casters

Wilkin & Matthews
CHARLOTTE, NORTH CAROLINA

formerly assistant superintendent on the second shift at plant No. 4, was made first assistant superintendent of the mill. **Clyde Leonard** was promoted from third shift assistant superintendent to second; **Poindexter Craven** was made assistant superintendent, third shift; and **Robert E. Ballard** was appointed Mr. Craven's assistant.

Albert J. Huber, formerly with Burlington Mills Corp., has been appointed director of spun fabric development and research for Textron Inc.

Obituaries

Earl Constantine, president of the National Association of Hosiery Manufacturers, died of a stroke on January 4. Mr. Constantine was 66 years old.

Ethelbert P. Hebert, president and treasurer of Hebert Knitting Co., died on December 17.

Brig. Gen. Allen R. Kimball, former commanding general of the Quartermaster Replacement Training Center at Camp Lee, Va., and personnel manager of Mohawk Carpets, Inc., after his retirement from service in 1946, died recently in Amsterdam, N. Y., after a short illness.

Funeral services were held on December 10 for **Thomas P. Burke,** assistant superintendent at the Lewiston, Me., division of Pepperell Manufacturing Co.

William R. Gaede, 70, retired president of Gaede Silk Dyeing Co., died recently of a heart ailment.

A. N. James, 76, owner of Kindley Cotton Mills, Mount Pleasant, N. C., was buried on December 21.

Falls L. Thomason, southern manager of New York & New Jersey Lubricant Co., died suddenly December 21 at the age of 55.

Frank E. Richmond, chairman of the board of Crompton Co., died recently in Winter Park, Fla. He was 73 years of age.

Chester S. Allen, with Lockwood Greene Engineers, Inc., until his retirement in 1950, died at Auburndale, Mass., on January 6.

Millard M. Bosworth, former general manager at the Memphis, Tenn., plant of Bemis Brothers Bag Co., died recently at the age of 73.

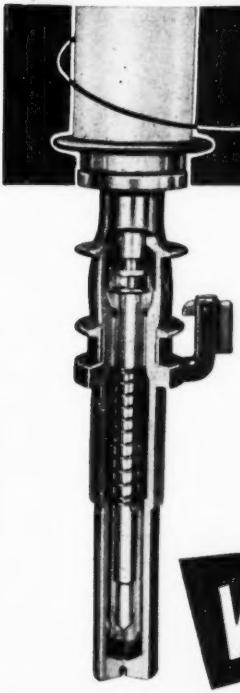
Joseph J. Harney, 51, vice-president and general manager of Firestone Textiles in New Bedford and Fall River, Mass., died on December 1 following a short illness.

Frank E. Masland, Sr., 84, board chairman of C. H. Masland & Sons, died on December 1 following an operation.

Henry H. Crapo, 89, president of the Mt. Hope Finishing Co. until 1946, died recently in Leesburg, Fla. He had been in poor health for two years.

Fred J. Merchant, retired carder of the American Woolen Co. in its Lebanon, N. H., mills, died recently at the age of 77.

Ivor Booth, 41, head of production of the Ilona Worsted Co., Millville, Mass., died on December 2 following an illness of several months. He was a member of the National Association of Woolen and Worsted Overseers and first secretary of the Spinners Guild of that organization.



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first in Quality since 1868

WICACO Roller Bearing Spindles, incorporating the SKF roller bearing type of bolster, are the finest spindles your money can buy, developed to perfection through the many years since Wicaco first introduced Roller Bearing Spindles to the Textile Industry.

Many textile mills have found that Wicaco Roller Bearing Spindles cost no more than ordinary ones, and reduce operating costs. We will design them to meet your particular requirements. Write today for quotations without obligation.

The WICACO SPINDLE OILING MACHINE guarantees proper lubrication for all twisting spindles, flushes out the old oil and replaces it with fresh clean oil in one simple operation. Saves time, labor, power. Order yours today, or send for descriptive folder NOW.

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Designers and Manufacturers of Precision Machinery and Parts

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Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

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A SMALL SOUTHERN HOSIERY MILL

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

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3 and 4 Grooves
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The laminated construction of Specialty Hardwoods' loom beam barrels assures square shoulders, lasting straightness and years of satisfactory service.

- *RESIN BONDED LAMINATED HARDWOOD BARRELS.*
- *STEEL SHAFTS — PINNED TO BARREL — NEVER WORK LOOSE.*
- *SHAFTS TURNED TO WITHIN .005" TOLERANCE.*

AVAILABLE IN CLEAR OR GRAY LACQUER FINISH.

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SPECIALTY HARDWOODS, INC.

P. O. BOX 1351 GREENVILLE, S. C.

What the TEXTILE MILLS *are doing*

Chicopee Manufacturing Corp. is planning an expansion and improvement program at its branch mill at Athens, Ga., formerly owned by Athens Manufacturing Co.

An expansion and modernization program at **Crystal Springs Bleachery,** Chickamauga, Ga., now nearly completed, is expected to increase cotton manufacturing division output by about 50 per cent.

Cotton yarns and kindred products will be manufactured by **Yarns International Corp.,** 194 Summer St., Boston, Mass., recently chartered. Edwin E. Ford is president.

A bond issue was approved by citizens of Aberdeen, Miss., for construction of a one-story mill, to be occupied by **Textron Inc.** for manufacture of cotton drills, twills, and other heavy staple goods.

Quality Dyeing and Finishing Co. has leased about 15,000 sq ft floor space at 100 Fifth Ave., Paterson, N. J., and has installed equipment for an initial output of about 30,000 yards per day.

William Teres Co., Inc., 171 Madison Ave., New York, N. Y., has purchased part of the former plant of Peace Dale Mills, Inc., and is equipping it for an acetate weaving mill.

Sayles-Biltmore Bleacheries, Biltmore, N. C., a subsidiary of Sayles Finishing Plants, Inc., have plans for an expansion and improvement program which include a new one-story addition and installation of considerable new equipment.

Webco Mills, Inc., Greensboro, N. C., recently chartered, will manufacture fine-gauge tricot knit goods. The new company is headed by Webb Durham, formerly with Burlington Mills Corp.

Henderson (N. C.) Cotton Mills, Inc., is planning a one-story addition to the main mill, for increased capacity.

Rose Mills, Inc., Philadelphia, Pa., has purchased the complete mill equipment of Arthur Bone, Inc., Los Angeles, Cal., previously used for novelty yarn manufacture. It is be-

SYKES

Cloth Inspectors Provide Better Finished Fabrics

Model No. 200N

Sykes builds 20 different types of cloth inspection machines, each designed to do a particular job in your mill.

The Sykes No. 200 N with lighting encasement is a Constant Speed inspecting and measuring machine and is the ideal machine for inspecting cotton, rayon, nylon or plastic materials.

Sykes inspecting and measuring machines are standard equipment in many of the country's largest mills.

Let us know your requirements.

BUILDERS ALSO OF:

Burling machines Aluminum Tubing Rolls for Batching machines 1½" and 2" paper tubes. Steel Collapsible Rollers. And Inspection Tables to your own specifications.

Sykes Fdry. & Mach. Co.

Burlington, N. C.

P. O. Box 1178 **Phone 4281**

lieved that the equipment will be moved to Philadelphia.

Part of the former plant of Peace Dale Mills, Inc., South Kingston, R. I., has been purchased by **Yankee Finishing Co., Inc.,** 4 Cross St., Central Falls, Pawtucket, R. I.

Run-Prufe Hosiery Mills, Inc., Union, S. C., has announced plans for construction of an addition to the building, which will provide 6,000 sq ft floor space. Additional knitting machines and auxiliary equipment will be installed.

Marion Mills, division of Munsingwear, Inc., have announced plans for the opening of plants at Hamilton and Guin, Ala. A new building of about 30,000 sq ft floor space is being constructed at Hamilton, to be completed by July. The Guin operation will use a converted building, and will not be in production until early next year.

A knitting mill for manufacture of outerwear will be operated by the recently organized **Esquire Knitting Co., Inc.** Dorothy Golden, 271 Madison Ave., New York, N. Y., is attorney and representative.

A new monorail lap conveyor system has been installed at **Laurens (S. C.) Cotton Mill,** and a new weave room floor of more than 37,000 sq ft has been constructed.

H. & F. Binch, Inc., Glen Falls, N. Y., affiliated with Native Laces & Textiles, Inc., is engaged in an expansion program which will increase its tricot operation by about 50%.

Appleton (Wis.) Fabric Products Co. has under construction a one-story addition to the mill, to be equipped for increased operations.

The newly chartered **Bain Corp.,** 19 Chestnut St., Cambridge, Mass., will manufacture textile fabrics, exact character not yet announced. John B. Reid is president and treasurer.

Conway (S. C.) Textiles, Inc., has let contract for construction of a one-story mill, reported to cost over $200,000, with equipment.

Delta Finishing Co., Wallace, S. C., is planning erection of a building to be used for warehouse service. It is estimated to cost $170,000.

Ilona Bohn, 25 Broadway, N. Y., is attorney and representative for **Vendome Knitting Mills, Inc.,** newly or

when the Ballerina fell flat on her dignity

INS reports an unusual performance by a famed ballet company in Detroit.

When members of the cast started sitting down suddenly, the audience suspected this was not in the script. But when the Prima Ballerina's dainty toes slid from under her—the audience was convulsed.

The culprit? Freshly laid linoleum on the stage, so highly polished it was as slippery as a skating rink. Hardly a safe surface for dancing—or even walking.

SLIP-ACCIDENTS are seldom funny to the victim. And there's no economy in lost man-hours and negligence suits. That's why heavily-trafficked buildings from coast to coast rely on the LEGGE SYSTEM of Safety Floor Maintenance.

Our Safety Engineers custom-tailor maintenance programs to your needs—give you floors that *shine without slipperiness.* They teach your crews how to properly apply LEGGE Safety Products. Show you *big* savings in labor and materials. One well-known institution cut its yearly maintenance budget from $60,000 to $40,000 with the LEGGE SYSTEM.

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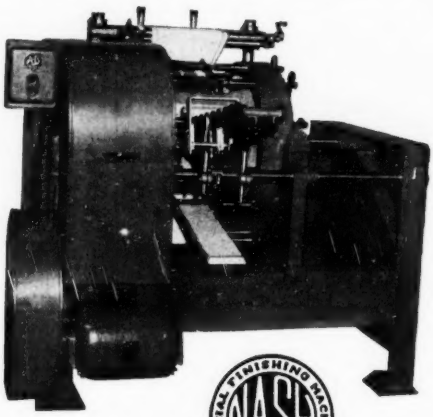
SAVE the Expense of Hand Washing with the No. 89 Nash AUTOMATIC BOBBIN WASHER

Washes flanged bobbins at 28 pieces per minute!

Textile mills throughout the country are finding the Nash No. 89 a time and money saver. It's a ten-spindle machine that does the entire washing and wiping operation automatically from start to finish. Eliminates the time and expense of hand washing. No dirt is left on the bobbin which would soil the yarn on the finished fabric. The cleaning solution used has a 140-degree flash point and is not toxic, assuring safe machine operation. The solution has no harmful effects on yarn, either natural or synthetic.

Write for complete descriptive bulletin

We also manufacture Automatic Bobbin Finishers, Quill Polishers and special-purpose machinery.



J. M. NASH COMPANY

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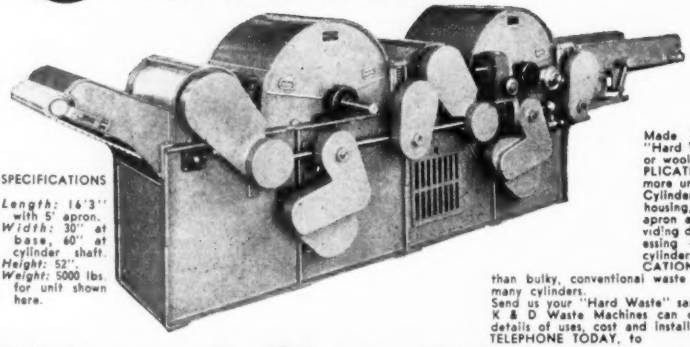
You can now whip your "HARD WASTE" problem with the new

LEFT above is hard twist unsized cotton warp waste. RIGHT—the processed waste after one time through K & D Tandem Unit. Many mills, pleased with such results from first installation, have ordered additional units.

K&D TANDEM APPLICATION WASTE MACHINE



SPECIFICATIONS

Length: 16'3" with 5' apron.
Width: 30" at base, 60" at cylinder shaft.
Height: 52".
Weight: 5000 lbs. for unit shown here.

Made for processing unsized "Hard Waste" in cotton, rayon, or wool, this new TANDEM APPLICATION combines two or more units of the K & D Single Cylinder Waste Machine in one housing, with only one feed apron and one exit apron. Providing double-action waste processing on each of the unit's cylinders, the TANDEM APPLICATION is far more efficient than bulky, conventional waste machines with twice as many cylinders.

Send us your "Hard Waste" samples for *proof* of what K & D Waste Machines can do for you. Ask us for details of uses, cost and installation. WIRE, WRITE, or TELEPHONE TODAY, to

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K & D SINGLE CYLINDER WASTE MACHINES • F-5 HOPPER FEEDERS, ANY WIDTH • SARGENT COMBS

Scrap Salvage Aid: Simple Tests to Detect Critical Metals

Simple and easily carried out tests for on-the-spot identification of nine wrought white metals and alloys in general use have been outlined by the Development and Research Division of the International Nickel Co., Inc., to aid industrial plants practicing scrap segregation and control. Included are nickel, Monel, Inconel, Incoloy, 70/30 cupronickel, and four types of stainless steel—304, 310, 321, 430.

Materials required for identifying the nine strategic metals are: a magnet, a small medicine dropper or glass rod, 10% hydrochloric acid, 1:1 hydrochloric acid, 10% potassium ferricyanide, concentrated nitric acid, and 1:1 nitric acid.

To Obtain Basic Material Groupings: Add one drop of 10% hydrochloric acid and allow it to react with the unknown metal for one minute. Then add one drop of 10% potassium ferricyanide solution and observe at the end of 30 seconds. If a dark green or blue color results, the material is one of Incoloy, Stainless Steel Type 304, 310, 321, or 430 (Group A). If there is no color or a red, green or yellow-brown color, the material is one of nickel, Monel, Inconel, or 70 copper-30 nickel (Group B). This divides the nine materials into two groups—an iron-alloy group (A) and a nickel-alloy group (B).

To Identify a Material in Group A: (1) Test with a magnet. If material is definitely magnetic, it is Stainless Steel 430. (2) Add a drop of 1:1 hydrochloric acid and allow it to react for one minute. Then add one drop of 10% potassium ferricyanide solution and observe at the end of 30 seconds. If the drop is white with a black edge, the material is Stainless Steel 310. (3) If the drop is green or bluish green, the material is Incoloy, Stainless Steel 304 or Stainless Steel 321. There are no spot tests which will distinguish accurately among these three alloys, and the operator must repeat the test using known materials as standards and comparing the reactions with those on the unknown materials.

To Identify a Material in Group B: (1) Add a drop of concentrated nitric acid and observe at the end of one minute. If no action occurs, the material is Inconel. (2) If the drop is a clear, pale green color, the material is nickel. Confirm by testing with a magnet. Nickel is definitely magnetic. (3) If the drop is a cloudy, blue-green color, the material is Monel or 70 copper-30 nickel. (4) Then add one drop of 1:1 nitric acid to a clean portion of the Monel or 70 copper-30 nickel specimen and observe after 5 seconds. (5) If the drop is bright green, the material is Monel. (6) If there is vigorous gassing and drop is pale, blue-green color, the material is 70 copper-30 nickel.

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ganized to operate a knitting mill for outerwear manufacture.

Edmund Glueck, 36 West 44th St., New York, N. Y., is attorney and representative for **Peek-Knit Corp.**, recently organized for operation of a knitting mill.

Seamans & Cobb Co. has been taken over and succeeded by **Seamans & Cobb Thread Mills Co., Inc.**, Hopkinton, Mass. Ralph D. Weston is president and treasurer.

Braids, narrow fabrics, etc., will be manufactured by the recently chartered **Beacon Braids, Inc.**, Beacon Falls, Conn. James J. McCarthy, Derby, Conn., is president, and Basil Breault, Beacon Falls, treasurer.

Lindwool, Inc., 51 Melcher St., Boston, Mass., recently incorporated, will manufacture fabrics of combination wool-rayon or other synthetic fibers.

Paul Savoie, 88 Brown St., Pawtucket, R. I., is president of the re-

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The slasher room foreman, in order to satisfy the superintendent and the cost department, must have available a Slasher Cloth that:

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cently organized **National Finishing Co.,** which will operate a textile printing and finishing mill at Freetown, Mass.

Work is expected to begin shortly on an addition to the **New Bedford Textile Institute,** estimated to cost nearly a million dollars.

A wool processing mill will be operated by **West First Processing, Inc.,** 321-23 West First St., South Boston, Mass. Harry Carr is president and treasurer.

A one-story addition to the mill, comprising 17,600 sq ft floor space, is planned at **Haynsworth Mill,** Anderson, S. C., operated by Woodside Mills, Greenville, S. C.

According to reports, **Princeton Worsted Mills,** Trenton, N. J., are planning a branch mill at Johnsonville, S. C. Property at Kingstree, S. C., is also being considered for a similar purpose.

Standard-Coosa-Thatcher Co. has plans under way for construction of a one story addition to its mill at Chattanooga, Tenn., to be used for warehouse service.

A $150,000 community building, to provide complete recreational facilities for the employees, is under construction at the **Victor Monaghan Greer (S. C.) Mill,** division of J. P. Stevens & Co.

A dye and finishing plant will be operated by the recently organized **G. & Z. Dye Works Corp.** David Grill, 421 West 28th St., New York, N. Y., is attorney and representative.

Charlotte (N. C.) Finishing Co., Inc., recently chartered, will operate a bleaching, dyeing, and finishing plant. Incorporators are O. M. Retian, C. P. Flanagen, and W. F. Robinson.

Phoenix Hosiery Co., Milwaukee, Wis., has made arrangements for production of its women's 60-gauge nylon hosiery at the branch mill of **Phil Cord Co., Inc.,** Concord, N. C.

Woven as well as tricot-knit fabrics will be manufactured at the Wallace, N. C., plant of **J. P. Stevens & Co., Inc.,** now under construction. The new plant will have approximately 180,000 sq ft floor space.

American Cord & Webbing Co., Inc., New York, N. Y., has filed notice of organization to operate in Rhode Island. Matthew Kopic, 400 Glenwood Ave., Pawtucket, R. I., is representative.

Rock River Woolen Mills, Janesville, Wis., is planning a one-story addition to the mill, to be used as a warehouse.

A steel conveyor bridge between building Nos. 4 and 5 at the mill will be constructed by **A. D. Juillard & Co., Inc.,** Atlantic Mills, Providence, R. I.

Screen Print Corp., Providence, R. I., was recently chartered to operate a textile silk screen printing works. Irving T. Arnold, 55 Dexterdale Road, Providence, is attorney and representative.

Warwick Mills, West Warwick, R. I., have disposed of most of their land and buildings to a private investor, and will occupy the property under a twelve-year lease. Mill equipment was not included in the transaction. No change will be made in operations at the present time.

Florence Textile Finishing, Co., Inc., Woonsocket, R. I., was recently organized, with Fred B. Perkins as attorney and representative.

Samarkand Mills, Inc., Rock Hill, S. C., has been dissolved by R. A. Postlethwaite, sole stockholder, and will continue as a private enterprise under the name of Mr. Postlethwaite.

What the TEXTILE MILLS are doing

James Lees & Sons Co. is planning construction of a one-story mill at Glasgow, Va., for production of duck and other textiles for the government, according to reports.

Operations at its rayon mill at Bethlehem, Pa., have been discontinued by **Schwarzenbach-Huber Co.,** New York, N. Y., and the equipment transferred to the company mill at Fort Royal, Va.

Broadalbin (N. Y.) Mills, Inc., is planning to change from manufacture of knitted coatings, cloths, and similar specialties, to a woolen weaving plant, with installation of looms and auxiliary equipment.

Isaac E. Okrun, 250 West 57th St., New York, N. Y., is attorney and rep-

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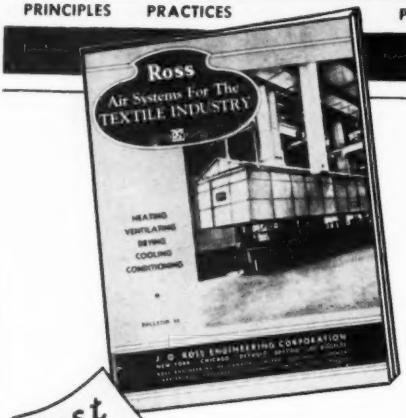

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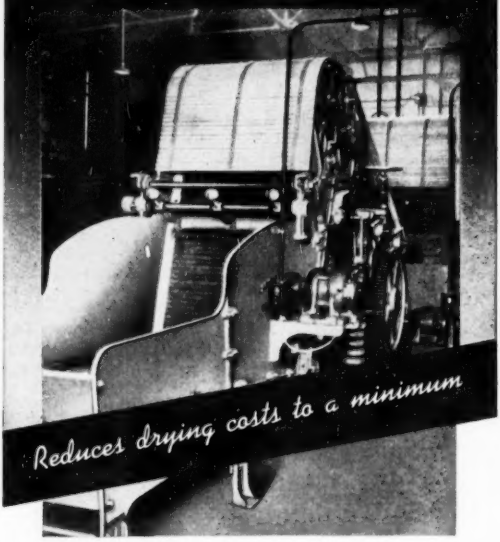

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What the TEXTILE MILLS are doing

resentative of **Alden Knitting Mills, Inc.,** recently chartered to operate a knitting mill.

A silk screen print works will be operated by **Crown Prints, Inc.** Nina Hart, 147-10 14th St., Long Island City, N. Y., is attorney and representative.

A number of buildings at the former Camp Butler army base, Durham, N. C., has been leased by the newly organized **Creedmor Co., Inc.,** and will be equipped for a finishing mill.

An expansion and improvement program is under way at **Holeproof Hosiery Co.,** Milwaukee, Wis. The entire project, including a new addition to the mill, is expected to cost about $1,500,000.

Additional equipment is being installed at the Coosa Mill, Piedmont, Ala., of **Standard-Coosa-Thatcher Co.**

An expansion and modernization program is under way at **Monroe (Ga.) Cotton Mills.** The cost, including additional buildings and new equipment, will be over $600,000.

The Trion, Ga., division of **Riegel Textile Corp.** has plans for a new addition to the mill.

Francis J. Winterson is president of **Do-Well Weaving Corp.,** 67 David St., New Bedford, Mass., recently chartered to manufacture rayon products.

A two-story addition to the mill, to be used for storage and distribution, is planned by **Globe Woven Belting Co., Inc.,** 1396 Clinton St., Buffalo, N. Y.

Anna Grossman, 2525 Wallace Ave., Bronx, N. Y., is company representative for **Dover Knits, Inc.,** organized to operate a knitting mill for manufacture of outerwear.

A knitting mill in Nagoya, Japan, has been acquired by **Elliot Glove Co.,** 10 E. 34th St., New York, N. Y., to be operated for part of its knit goods requirements.

Knit underwear will be manufactured by the recently chartered **Kerry Knits, Ltd.** L. A. Spina, 110 East 42nd St., New York, is attorney and representative.

Chipman Knitting Mills, Easton, Pa., have acquired **A. W. Wheeler & Son, Inc.,** Brevard, N. C. The new owners will continue operations as before, and have plans for mill expansion which will include installation of knitting machines to double present production.

A new dye house is being constructed at the mill of **Lymansville Co.,** Providence, R. I., to provide for increased output.

Richard A. Baldwin, 419 N. Main St., Woonsocket, R. I., is one of the incorporators of **Robert Hirss Co.,** organized to manufacture textile products.

A mill near Lebanon, Tenn., for manufacture of tire cord, is reported planned by **Firestone Tire & Rubber Co.,** Akron, O. The project is believed to represent an investment of about $5,000,000.

A profit-sharing plan to provide benefits for its eligible employees has been set up by **Callaway Mills Co.,** LaGrange, Ga.

Komet Links-and-Links machines of **Rutledge (Tenn.) Hosiery Mills** have been purchased by **Carpenter Hosiery Mills,** Wytheville, Va., and shipped to that location. Both mills are owned by the same interests. Carpenter will henceforth manufacture infants' and children's goods, in sizes 4-7½, formerly made at the Rutledge mill.

Dato Hosiery Co. has purchased and is operating the former **Sterling Dyeing & Finishing Co.** It will be used for dyeing and finishing goods from outside concerns as well as for Dato goods.

Contract has been awarded by **Gold-Tex Fabrics Corp.,** Rock Hill, S. C., for remodeling the main mill building.

Knit-Rite Hosiery Mills have moved into a new building at Cordele, Ga., having formerly shared the plant of Cordele Hosiery Mills.

A new plant at Selinsgrove, Pa., has been opened by Otto Kuehnert, head of **OK Hosiery Co.** Four tricot knitting machines have been purchased, and hosiery will be produced along with the manufacture of tricot cloth.

SAVE AT LEAST 50%

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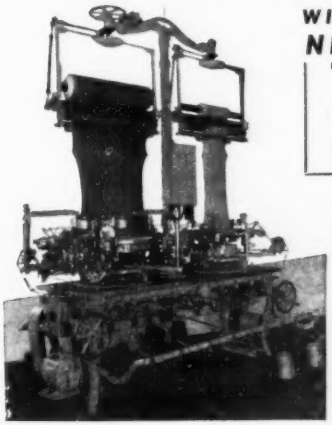

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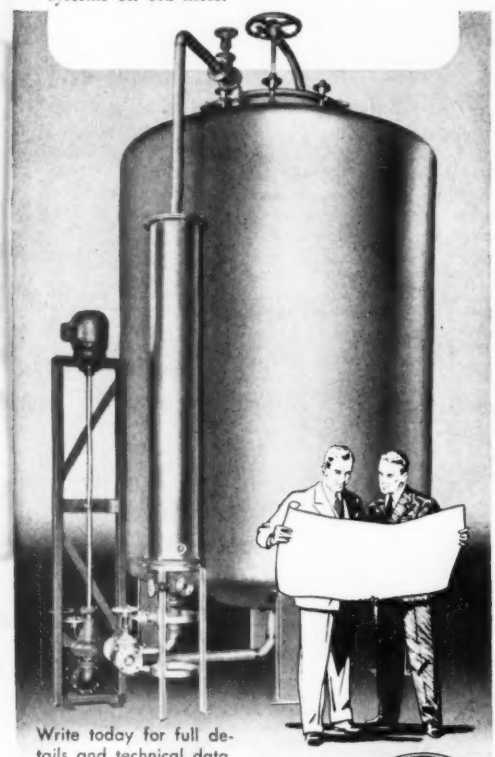

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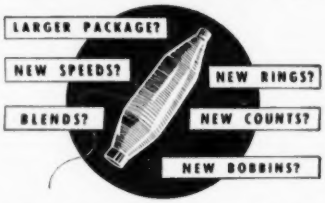

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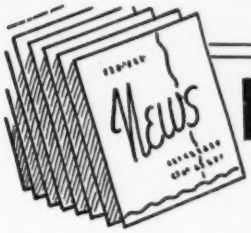

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This service is restricted to those engaged in operation and management of textile industries.

2-1. Coiler Conversion. Color brochure describing this company's new 15" coiler conversion for cards, combers, and drawing frames. The big package is discussed and the parts for conversion are pictured, along with advantages and savings gained by the conversion. Petty Machine Company, Inc., Gastonia, N. C.

2-2. Circular Knitting Machines. New Brochure just released illustrates the standard line of Brinton Large Diameter Circular Knitting Machines. Illustrations of twelve different machines appear with summarized descriptive information covering the functioning of the machines and their purpose, along with the illustrated colored swatches of fabrics produced on each style of machine. H. Brinton Company, Kensington Ave. and M St., Philadelphia 24, Pa.

2-3. Instruments. Composite catalog no. 5000, consisting of 28-pages, describes the principal instruments, control devices and related components manufactured by this company. Specifications of approximately 100 measuring and control instruments, and values are outlined. New designs include the Differential Controller and Tel-O-Set Controller Family. Minneapolis - Honeywell Regulator Company. Industrial Division, Wayne & Windrim Aves., Philadelphia 44, Pa.

2-4. Better Industrial Lighting. The first five of a series of booklets entitled, "See Better-Work Better" brings out the many advantages of good lighting. Many pictures bring out how accident rate can be cut, production increased, and quality improved by properly engineered lighting. General Electric Co., Inquiry Bureau, Nela Park, Cleveland 12, Ohio.

2-5. General Purpose Pumps. New Bulletin available on Allis-Chalmers grease-lubricated pedestal-mounted general purpose pumps. Described as being available in capacities to 2500 gallons per minute at heads to 550 feet and can handle almost any liquid at temperatures to 250°F. Fully discussed with cutaway diagrams and pictures. Allis-Chalmers Manufacturing Co. 10545 70th Street, Milwaukee, Wisc.

2-6. Automatic Regulating Valves. Bulletin 700 features a large cutaway illustration of a typical Spence pilot-operated regulating valve with detailed explanations of five design features. A panel is devoted to showing how the control function of a Spence Regulator can be changed by using a different sensitive pilot. Spence Engineering Company, Inc. Walden, N. Y.

2-7. Chromium Plating. New booklet tells how Walhard engineered hard chromium plating service works for industry. Walhard's capacity to produce, controlled quality, and economical operation are discussed along with pictures of the operations. Walton and Lonsbury, Attleboro, Mass.

2-8. Production Executives Manual. New 56 page book, "Production Control Systems and Procedures" details a unique method of materials control that results in a shorter production planning cycle while speeding production by eliminating the causes of varied delays on the production line, according to the booklet. Production executives will find the book a timely and valuable addition to their reference library. Remington Rand Inc., 315 Fourth Ave., New York 10, N. Y.

2-9. Lap Winder Change-Overs. New Booklet describes the two, recently perfected, sub-assemblies which will increase overall efficiency of the Lap Winders. These change-overs particularly will decrease doffing time and improve the quality of the lap, according to the booklet, and they are standard on new machines and may be applied to existing models. Operating advantages and savings discussed. Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

2-10. Laboratory Abrasers. Bulletin 5105 pictures and describes the 1952 model Taber Abraser, and pictures the various types of specimen holders with cutaway diagrams. Taber Instrument Corporation, 111 Goundry St., North Tonawanda, N. Y.

2-11. Electric Air Heaters. Portable and built-in electric air heaters used in industry are described in new four-page folder. Application photographs illustrate plant and office uses, which according to the booklet, are used to provide safe, clean, dependable heat for continuous or standby neds. Edwin L. Wiegand Co., 7700 Thomas Blvd, Pittsburgh 8, Pa.

2-12. Basic Materials Handling. New "pocket size" discusses efficient handling of raw and finished materials, their proper storage, and how modern materials handling machines can expedite manufacture, cut costs, save time and money etc. Also discusses the latest equipment in the materials handling field, and how to figure the cost of its' use. Industrial Truck Division, Clark Equipment Co., Battle Creek, Mich.

2-13. Textile Machinery. Full information available on this company's complete line of winders, warping machinery and warping creels. Pictures and typical installations written in four languages. Firma W. Schlafhorst & Co., M. Gladbach (Rheinland) Germany.

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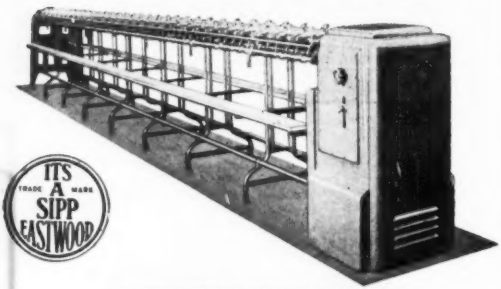

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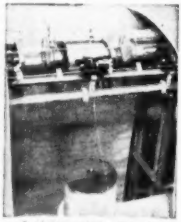
Self-Threading Tension

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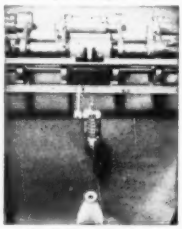
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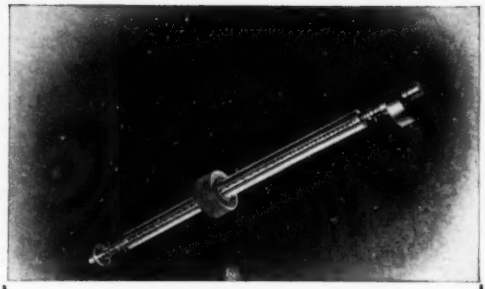

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GENERAL, ECONOMIC, MANAGEMENT

5 **FACTORING AND FINANCING**—Illustrated booklet on how factoring works, cost and credit information. —TEXTILE BANKING COMPANY, 55 Madison Ave., New York, N. Y.

7 **RAYON TELLS ITS STORY TO THE PUBLIC**—Folder containing reprints of advertisements explaining some of the many roles in which rayon is serving the American public. — AMERICAN VISCOSE CORPORATION, 350 5th Ave., New York 1, N. Y.

10 **LABOR AND MANAGEMENT BENEFIT BY INDUSTRIAL ENGINEERING PRINCIPLES**"—8 page illustrated folder outlining principles of industrial engineering as they apply to textiles.—AMERICAN ASSOCIATED CONSULTANTS, INC., New York, N. Y.

13 **BROCHURE** describing financial service to speed turnover of working capital; credit service for sales expansion and credit loss elimination. — WILLIAM ISELIN & CO., INC., 357 Fourth Ave., New York, N. Y.

14 **TEXTILE WEIGHT CONTROL**—Forms 2009 and 2010, showing how Toledo Printweight weight records cut costs by eliminating human errors at the scales. Special purpose scales for the Textile Industry fully discussed.—TOLEDO SCALE CO., Box 97, W. Toledo Sta., Toledo, Ohio.

PLANT AND PLANT MAINTENANCE

102 **"TANK TALK"**—Sixteen page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103 **HUMIDIFICATION, EVAPORATIVE COOLING**—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment. — AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

106 **MAPLE FLOORING**—Booklet describing finishing of Northern Hard Maple Flooring — list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

109 **CARD STRIPPER**—Portable dustless card stripper described in bulletin 1050. Advantages of dustless stripping when combined with thorough brush stripping. Used alone or with other systems discussed.—PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

114 **AUTOMATIC CLEANERS** — For removing lint from recirculating air screens of unit or central station type air conditioning equipment described. Highly durable and economical in first and operating costs, according to the booklet.—THE BAHNSON CO., Winston-Salem, N. C.

119 **MOPPING EQUIPMENT**—Complete catalog and circulars containing information on the many sizes and styles that can be had.—S. C. LAWLOR CO., 121 N. Aberdeen St., Chicago, Ill.

123 **STAINLESS STEEL TANKS** — Bulletin CHR-50 illustrates the half round stainless steel horizontal jacketed tank with horizontal agitator and scraper blades, used for size cooking. Bulletin JS-50 shows various stainless steel jacketed tanks, and SS-50 shows single shell tanks.—METAL GLASS PRODUCTS CO., Belding, Mich.

127 **SOLENOID VALVES** — Bulletin "V" lists sizes from ½ inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats, three way solenoid valvs, tc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

137 **PUMPS AND COMPRESSORS**—Bulletin QP- 1 presents the standard types of Gardner-Denver air compressors, centrifugal pumps, steam and power reciprocating pumps in a brief and comprehensive manner to enable the prospective user to select the size and type for specific needs.—GARDNER-DENVER CO., Quincy, Ill.

150 **RIHCO HUMIDIFIERS AND COOLING SYSTEMS**—Bulletin describes new atomizers with construction lessening air consumption in humidifier

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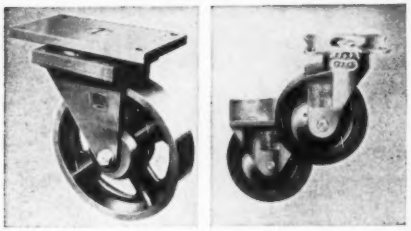

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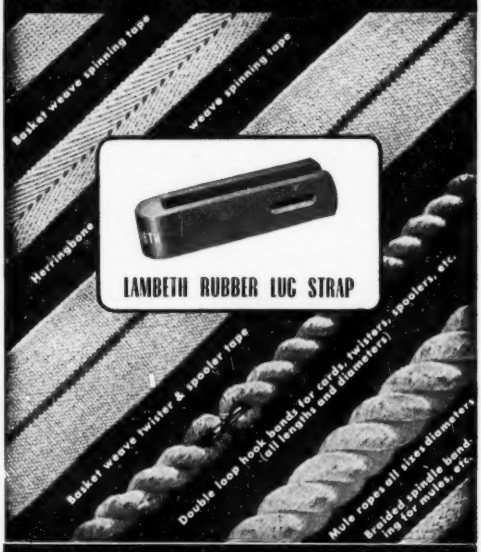
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systems, evaporative cooling systems.—ALDRICH MACHINE WORKS, Greenwood, S. C.

151 **INDUSTRIAL BRUSHES**—Illustrated Booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

173 **BLOWERS AND EXHAUSTERS** — Bulletin No. 3014-D describes types "E" and "RE" electric blowers and exhausters. Uses and full description of each with detail drawings. — BUFFALO FORGE CO., 490 Broadway, Buffalo 5, N. Y.

POWER TRANSMISSION, MOTORS, BELTING, LUBRICATION

202 **RELIANCE MOTOR**—Bulletin C-130 on the explosion-proof, corrosive-resisting a-c motor. Design features exclusive with the new motor are connected and illustrated in the bulletin.—THE RELIANCE ELECTRIC & ENGINEERING CO., 1076 Ivanhoe Road, Cleveland, Ohio.

205 **VARIABLE SPEED SPINNING FRAME DRIVE**—Reeves bulletin G-501 describes the Reeves Vari-Spin Drive which has infinitely variable speed within a 2½ to 1 range and replaces the constant speed drives now in use.—REEVES PULLEY CO., Columbus, Ind.

209 **BROADSIDE F.L.B. 300** — A condensed catalog showing Trico fuses, fuse clip clamps, test clamps, fuse pullers and all types of automatic oilers. Available upon request.—TRICO FUSE MFG. CO., 2948 N. 5th St., Milwaukee 12, Wisc.

216 **LEATHER BOOKLET NO. 202**—Attractive book illustrating and describing BONDARON Special Tanned Leather as used in various forms such as Check Straps, Solid Round Leather Belting, Flat Belting.—CHAS. BOND CO., 617 Arch St., Philadelphia, Pa.

223 **ELEVATOR SELECTION**—How to integrate the selection of freight elevators with the material handling problem answered in 44-page booklet B-4402 on freight elevators. — ELEVATOR DIVISION, WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh, Pa.

228 **MOTOR BULLETINS**—Bulletins No. 400 and 460 describe Robbins & Myers' polyphase, single-phase and D.C. drip-proof, splash-proof, explosion-proof, totally enclosed fan-cooled motors. — ROBBINS & MYERS, INC., Motor Division, Springfield, Ohio.

232 **LUBRICATION EQUIPMENT**—Industrial catalog No. 63 illustrates and describes complete line of power and manually operated lubricating equipment, grease fittings and accessories.—LINCOLN ENGINEERING CO., 5701 Natural Bridge Ave., St. Louis 20, Mo.

236 **LEATHER BELTING CALCULATOR** — Handy and attractive calculator for determining belt, speeds, horsepower per inch of belt widths, etc., will be sent free on request.—J. E. RHOADS & SONS, 35 N. 6th St., Philadelphia, Pa.

240 **LEATHER BELTING**—Illustrated booklet on how to select, install and maintain leather belting. Efficient transmission performance, with minimum maintenance, and maximum service life described.—SOUTHERN BELTING CO., 236 Forsyth St., N.W., Atlanta, Ga.

257 **ONE-SHOT LUBRICATION OF TWISTER AND SPINNING FRAME** — Illustrated booklet telling how Saco-Lowell builds in the Bijur central oiling system to boost production output and cut maintenance costs.—BIJUR LUBRICATING CORP., Rochelle Park, N. J.

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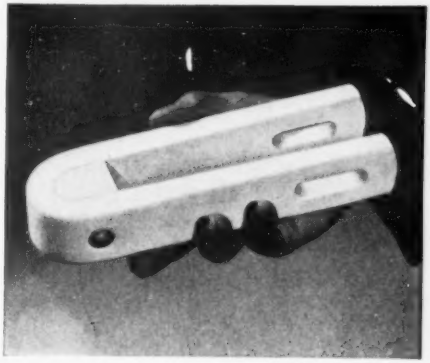

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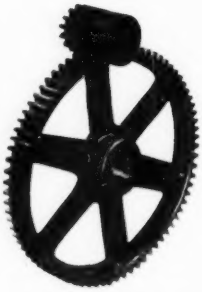

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erations in textile mills.—OAKITE PRODUCTS, INC., 22 Thames St., New York, N. Y.

301 **JOHNSON ROTARY PRESSURE JOINTS**—Bulletin describing the rotary pressure joint which requires no packing, no lubrication and no adjustment, giving installation and maintenance instruction, types, sizes, dimensions and prices.—THE JOHNSON CORP., Three Rivers, Mich.

302 **INSTRUMENTS** — Illustrated catalog covering uniformity analyzer, acoustical measuring devices, and other non-destructive industrial measuring instruments. Illustrated brochure describing hypersonic equipment for both laboratory and pilot plant use in the field of ultrasonics.—BRUSH DEVELOPMENT CO., 3405 Perkins Ave., Cleveland 14, Ohio.

316 **HYDRAULIC POWER UNITS** — Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

321 **RED-RAY BURNERS**—Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., 445 W. 45th St., New York, N. Y.

CARDING, SPINNING, WINDING

404 **THE TRAVELER** — Booklet on ring travelers published quarterly with a technical article on spinning and twisting of interest to mill men.—VICTOR RING TRAVELER CO., Providence, R. I.

402 **AUTOMATIC CLEANING AND OVERHEAD HANDLING FOR TEXTILE MILLS**—24-page bulletin describing the American Monorail Automatic Cleaner for preventing accumulation of lint on spinning, twisting, winding and warping machines. Also for cleaning monitors and card room ceilings.—THE AMERICAN MONORAIL CO., Cleveland, Ohio.

415 **DOUBLE-TWISTER FOR LARGE PACKAGES**—Bulletin describing two new machines producing straight or tapered top bobbins. Suitable for filament or spun yarns up to three pound capacity. Individual thread stop motion fully discussed.—FLETCHER WORKS, INC., Philadelphia, Pa.

422 **MODERN TEXTILE ROLL COVERING**—Illustrated booklet on roll covering problems with charts on correct usages. Also data on Acotex long draft aprons.—ARMSTRONG CORK CO., Industrial Division, TEXTILE PRODUCTS SEC., Lancaster, Pa.

423 **TEXTILE SHEET METAL PRODUCTS** — Folder on cylinders, card screens, licker-in screens, repair work.—JENKINS METAL SHOPS, INC., Gastonia, North Carolina.

428 **PNEUMATIC ROLL PICKER**—Attractive Bulletin descriptive of the "Amoskeag" roll picker that removes fly and lint from the top rolls and other drafting elements in spinning and roving frames. — M-B PRODUCTS, Detroit, Mich.

435 **DOUBLE DECK TWISTERS**—Bulletin describes Jumbo (8 oz. to 16 oz. headless or take-up spool packages) and Acme (up to 10 oz. packages) models for high speed twisting of silk, rayon, nylon, etc., to finest deniers.—U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

447 **CONE WINDER**—Form A95 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply.—FOSTER MACHINE COMPANY, Westfield, Mass.

454 **CARD AND PICKER BEARINGS** — Four-page, two-color folder which describes this manufac-

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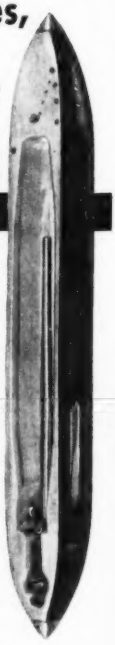
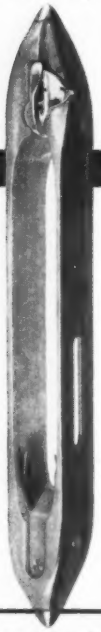


PICK and PICK

Watson-Williams Spindle Shuttle (shown at right) with Patterson Tension, holds a 9½" paper tube, and is becoming increasingly popular on W-3, C-4 and C-5 Convertible Looms for the weaving of pick and pick fabrics.



AUTOMATIC

Weavers on all three looms, when operating automatically, are equally enthusiastic about Watson-Williams Automatic Bobbin-Changing Shuttle (illustrated at the left) which holds an 8¾" bobbin. It may be equipped with Watson-Williams 15L Cotton Eye, 15L Center Tension Eye, or W15L Rear Tension Eye.

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turer's ball and roller bearings for cards and pickers.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.

455 **PIN DRAFTS** — Catalog describing the use and features of the machine, what it can do to cut costs in the processing of natural and synthetic yarns, along with specifications and installation data.—WARNER & SWASEY CO., 5701 Carnegie Ave., Cleveland, Ohio.

458 **CONICAL RINGS AND FLYERS** — Special data available on the Herr conical rings and flyers.—HERR MANUFACTURING CO., INC., 318 Franklin St., Buffalo 2, N. Y.

463 **H & B CASABLANCAS** — High-draft spinning systems fully discussed in new booklet. The H & B Casablancas super high-draft system, 4-roll high draft system and 5-3 system discussed with pictures and cutaway diagrams.—H & B American Machine Co., Pawtucket, R. I.

WEAVING, SLASHING

501 **LOOMS**—An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms". Information on all types fully discussed.—CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502 **COUNTING AND MEASURING DEVICES**—Condensed Textile Catalog illustrating and describing pick counters, nank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery.—VEEDER-ROOT, INC., Hartford, Conn.

506 **SLASHING HINTS**—A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing selvages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc.—SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

508 **LOOM PRODUCTION CHARTS**—Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds.—RALPH E. LOPER CO., Greenville, S. C.

517 **LOADING SYSTEM**—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices. — THE FOXBORO COMPANY, Foxboro, Mass.

523 **OVERHEAD MOUNTS FOR BIGGER LOOM BEAMS**—Folder illustrating and describing how bigger beams can be adapted under all mill conditions, includes handy Multiplier Table showing increased yarn capacity possible with bigger beams. — WEST POINT FOUNDRY & MACHINE COMPANY, West Point, Ga.

DYEING, FINISHING, CLOTH ROOM

605 **CONTINUOUS AUTOMATIC EXTRACTING MACHINE**—Folder describing the most efficient method of extracting excess liquid from fibrous materials.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

610 **PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY** — Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Pre-Boarding and Automatic Boarding Machines for hosiery. —PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

618 **CLOTHROOM EQUIPMENT** — An eight-page brochure is available describing clothroom machines. Shearing, Brushing, Sewing and Inspecting. All illustrated and fully discussed.—HERMAS MACHINE CO., Warburton Ave., Hawthorne, N. J.

630 **VAT DYEING OF WOOL**—Write for Calco Technical Bulletin No. 797 outlining fundamental dyeing procedure, and explaining new advances in the technology of wool dyeing and finishing.—CALCO CHEMICAL DIVISION, AMERICAN CYANAMID CO., Bound Brook, N. J.

636 **TWO-ROLL HEAVY PADDER** — Made particularly for applying resin finishes and water repellents, but described as an all-purpose machine. Rubber squeeze rolls mounted in self-aligning roller bearings and rubber is special composition. Pressure up to 15 tons uniformly applied.—BIRCH BROTHERS, INC., 32 Kent St., Somerville 43, Mass.

640 **"CIRCULATING" SKEIN DYEING MACHINE**—Booklet illustrating the principle behind the stainless steel machine which have "Revolutionized Skein Dyeing," for filament and spun synthetic yarns in skein form.—SMITH, DRUM & CO., Philadelphia 33, Pa.

DYESTUFFS, CHEMICALS, SOAPS

701 **MAGNESIUM APPLICATIONS**—Case history information on magnesium application in the textile field, published bi-monthly with latest developments in the magnesium industry.—DOW CHEMICAL CO., Midland, Mich.

721 **SURFAX 1288**—Product data sheet explains this useful wetting and rewetting agent. Described as being water soluble at all temperaturs and is a highly concntrated, economical surface-active agent. — E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

756 **TEXTILE SPECIALTIES**—Listing and describing a wide and complete range of specialties manufactured and sold by American Cyanamid Company formulated to the latest advances in textile chemistry.—AMERICAN CYANAMID COMPANY, 80 Rockefeller Plaza, New York 20, N. Y.

766 **DU PONT PEROXIDE BLEACHING SYSTEMS** —New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

776 **SERIZYME** — Bulletin describing the properties and characteristics of Serizyme, a standardized liquid proteolytic enzyme preparation which can solubilize various types of protein substances. — WALLERSTEIN COMPANY, INC., 180 Madison Avenue, New York 16, N. Y.

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778 **DESIZING ENZYME**—Data sheet "HT" describes new stable high temperature desizing agent. Effective on both starch and gelatine sized goods. Being used by the continuous pad-steam method.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING

803 **THE TUBE-TEX FOR TUBULAR KNIT GOODS**—Bulletin describing this modern machine which extracts, processes, dries, conditions and folds in one continuous operation, lowering costs, saving labor, power, space and waste.—H. W. BUTTERWORTH & SONS CO., Bethayers, Pa.

816 **THE NEW REINER KAYLOOM**—A combination Knitting Weaving Loom, featured in an illustrated catalog, showing filler attachment and other important points along this machine.—ROBERT REINER, INC., Weehawken, N. J.

817 **AUTOMATIC SELECTIVE STRIPPING MACHINE**—Descriptive and illustrative folder, entitled "If It's Stripes, Consult Brinton," now available. Important mechanisms involved in the process are described.—H. BRINTON COMPANY, Kensington and "M" St., Philadelphia, Pennsylvania.

818 **FORGED HEAD ALUMINUM BEAMS**—Bulletin 49-A shows new beam capable of holding high yardage of nylon and rubber warps, with specifications. Also describes permanent mold aluminum tricot and section beams.—MILTON MACHINE WORKS, INC., Milton, Pa.

822 **HIGH SPEED JERSEY CIRCULAR MACHINE**—Booklet describing Supreme's line of high production, body-size and large diameter jersey machine, Model MJ, for underwear and outerwear.—SUPREME KNITTING MACHINE CO., 105 Johnson Av., Brooklyn 6, N. Y.

SEWING MACHINES

916 **THE SUPERLOCK**—Bulletin 828 describing and illustrating the W & G Superlock overseaming machine.—WILLCOX & GIBBS SEWING MACHINE CO., 214 W. 39th St., New York 18, N. Y.

919 **FEED-OFF-THE-CAM FELLING MACHINE**—Bulletin No. 896, illustrates and describes the "Feldlock" with Automatic Lubrication, for lap seam felling on shirts, pajamas, shorts, slacks, etc.—WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y.

MATERIALS HANDLING

1002 **BASKETS & TRUCKS**—Illustrated catalog describing canvas baskets and trucks of all types and sizes with recommended uses emphasized.—MEESE, INC., Madison, Ind.

1004 **PITTSBURGH COLLAPSIBLE CARGOTAINERS**—How your materials handling cost can be reduced by the use of steel wire contianers. Brochure shows them in actual use.—PITTSBURGH STEEL PRODUCTS COMPANY, Pittsburgh 30, Pa.

1008 **CASTERS AND WHEELS**—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010 **CONVEYOR KEY BOOK**—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1027 **SINGLE-BEAM CRANES**—Bulletin No. 130 describing and illustrating the single beam type of overhead traveling crane.—SHEPARD NILES CRANE AND HOIST CORP., Montour Falls, N. Y.

1030 **C-D HOLLOW WARE**—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 38, Del.

1033 **WIRE ROPE ELECTRIC HOISTS**—4-page bulletin describing R&M Type "J" Wire Rope Electric Hoist. Lug, Hook, or Trolley suspension. Capacities from 500 to 2000 pounds. Bulletin 451.—ROBBINS & MYERS, INC., Hoist & Crane Div., Springfield, Ohio.

MISCELLANEOUS

1101 **AUTOMATIC BOBBIN REFINISHER**—A descriptive bulletin illustrating and describing method of refinishing throwing bobbins on a production schedule.—J. M. NASH COMPANY, 2300 N. 39th St., Milwaukee, Wis.

1102 **BALING PRESSES**—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103 **UNBRAKO SCREWS**—Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1110 **CUTTING MACHINES**—A collection of specification sheets and general descriptive matter covering cutters for thread waste, staple, fiber, etc. Complete description and uses.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1117 **CUSTOM MADE THREAD GUIDES**—Illustrated booklet describing uses and physical properties of the "AlSiMag" line of Thread Guides. Advantages fully discussed with picture and specifications of each type.—AMERICAN LAVA CORP., Chattanooga 5, Tenn.

1120 **PUMPS**—Booklet B-2300 describes the Peerless Fluidyne pumps which are described as a line of economical horizontal end-section centrifugal pumps for general purpose service. Motor sizes from ¼ to 150 H.P. and capacities from 10 to 5500 G.P.M. against heads up to 260 ft.—PEERLESS PUMP DIV., FOOD MACHINERY & CHEMICAL CORP., Los Angeles 31, Calif.

February, 1952

Please send, without obligation, additional information on New Equipment and booklets described (give Key numbers).....

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Please send more information on editorial articles and advertisements (give Page numbers).....

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SUPPLIERS News

WHAT THEY ARE DOING

James H. W. Conklin has succeeded James P. Kinney as general sales manager of the Philadelphia division of **Yale & Towne Manufacturing Co.** Mr. Kinney now has the distributorship in Los Angeles and southern California.

Westinghouse Electric Corp. has announced the appointment of H. H. Hanft as assistant to the manager of the industrial department. Mr. Hanft was formerly a section manager of transportation sales.

Guy R. Williams is the new service

Mr. Williams

manager at **Foster Machine Co.'s** office in Charlotte, N. C.

N. T. Joyner, formerly with Lever Brothers Co., has joined the technical staff of the Votator Division of **The Girdler Corp.**

Polymer Southern, Inc., Greenville, S. C., has been appointed distributor for **B. F. Goodrich Chemical Co.** of Good-rite TS-20, a processing size for nylon, in the southeastern states.

For his contribution to the World War II effort in industrial intelligence, Hans Georg Fiedler, division manager of **Textile Machine Works,** recently received a Department of the Army award. Mr. Fiedler served with the Technical Industrial Intelligence Committee, which worked closely with the Joint Chiefs of Staff.

The new Euclid, Ohio, plant of the **Reliance Electric & Engineering Co.** is now in operation, all departments having moved from the firm's two plants in Cleveland. Built at a cost of about $1,800,000, the plant is a

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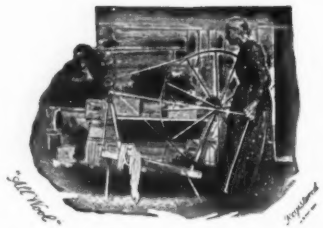
LAWRENCE, MASS., U.S.A.



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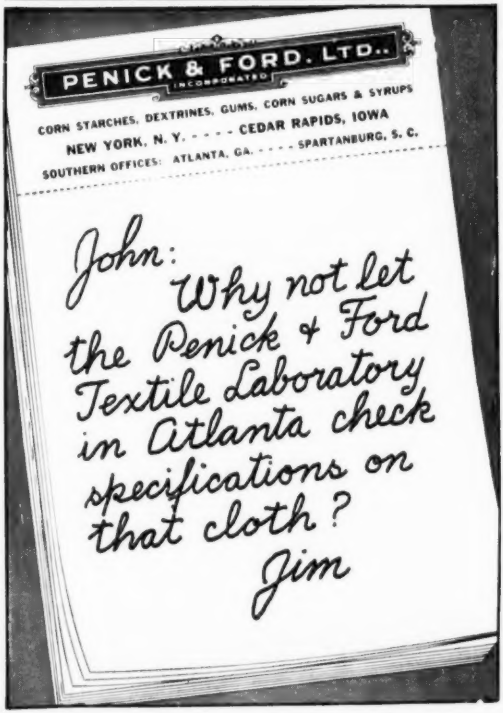
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John: Why not let the Penick & Ford Textile Laboratory in Atlanta check specifications on that cloth?
Jim

SUPPLIERS News
WHAT THEY ARE DOING

single-story structure with a total floor area of 133,000 sq ft. Reliance has also announced the promotion of John L. Fuller to the newly created post of manager of research and technical services.

In addition to remaining chief chemist for **Borne, Scrymser Co.**, Richard G. Keppler has taken over the duties of manager in charge of production of the Ultra-Penn Refining Co., Bruin, Pa., a wholly-owned subsidiary.

Formerly with Wamsutta Mills, Ray C. Pillsbury is now handling sales promotional work for the **Universal Winding Co.**, and acting as assistant to the vice-president in charge of domestic sales. Frank P. Barrie has been transferred from the New England sales territory to the Charlotte, N. C., office of the firm. Fred Sails of the Charlotte office has announced his coming retirement, effective in June.

The **Edwin F. Guth Co.**, St. Louis, Mo., has appointed the firm of **Douty & Downie** as sales representatives for the states of Maryland and Virginia, and Washington, D. C.

John Hetherington & Sons, Inc., has moved its headquarters from Boston, Mass., to N. Marietta Street Ext., Gastonia, N. C. The firm acts as agent for Dronsfield Bros., Ltd., Platt Bros & Co. Ltd., and Horsfall & Bickman, Ltd. John Knoblock is president and treasurer of the organization.

Richard H. Whitehead has been elected president of **Scott & Williams, Inc.**, succeeding Ralph E. Thompson, now chairman of the board.

Watson & Desmond, Charlotte, N. C., now represent the **Dana S. Courtney Co.**, Chicopee, Mass., in the entire southern territory. The firm has also been appointed southern representatives for the **New England Paper Tube Co.**, and in addition will handle Adolff dye tubes in the South. Hugh K. Smith, formerly with Terrell Machine Co., is now representing Watson & Desmond in Georgia, Alabama, Mississippi, and Louisiana.

Robert G. MacDougall has succeeded the late Albert Leitstein as general manager, featured fabric finishes department, of **Warwick Chemical Co.**, a division of Sun Chemical Corp.

Gerrard Steel Strapping Co., a United States Steel Corp. subsidiary, has moved its southern division plant from New Orleans to Birmingham, Ala., occupying the former Pittsburgh Plate Glass Co. building at Ninth Ave. and 20th Street, North.

Louis A. Prince, representative of **Oakite Products, Inc.**, in the Greensboro, N. C., area, was recently presented with a special scroll in connection with the firm's Distinguished Service Award program. Awards are

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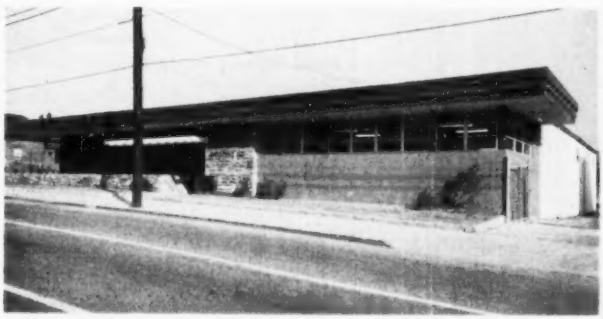
Modern Atlanta home of **The Fafnir Bearing Company.** Located at 245 Piedmont Ave., the building has 8,000 sq ft of floor space for offices and warehouse, where bearings for textile applications are stocked.

Design of the building is such that flowers grow from the ground in the reception room.



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By actual tests one ABC HAIRON Check Strap has outlasted up to as many as six competitive straps.

Make a test in your mill . . . buy 100 lbs. of ABC HAIRON straps and 100 lbs. of straps from selected manufacturers. Have one loom fixer install all straps and keep accurate records.

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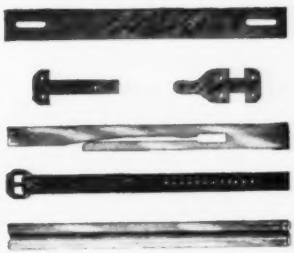

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made annually to the five members of the company's field organization adjudged to have rendered especially notable service to industry during the year.

Cooper Motor Lines, Inc., Greenville, S. C., has announced the election of the following officers: J. D. Dennis, Jr., secretary; R. H. Gearhart, vice-president and general sales manager; J. E. Oehmig, vice-president of company operations; and T. L. Ryan, vice-president in charge of textile sales. Lamar Kennedy is president of the organization.

Appointment was recently made by E. H. Jacobs Northern and Southern Divisions of **The Bullard Clark Co.** of

Mr. MacMaster

Wallace MacMaster, Jr., as direct sales and service engineer for the textile weaving industry in the midwest.

John H. Fulweiler, John A. Slaughter, and H. Rivington Pyne, Jr., have announced the formation of the firm of **Fulweiler, Slaughter & Pyne, Inc.,** marketing and public relations consultants. The firm's offices are at 366 Madison Ave., N. Y.

As part of its expansion program, **United Lacquer Manufacturing Corp.** has announced plans for construction of a new laboratory building. Special development projects are being instituted in behalf of the textile printing, laminating, and plastics industries, according to Saul Cantor, vice-president.

Kenneth H. Gayle, Jr., was recently elected president of **The Ingalls Iron Works Co.,** Birmingham, Ala., succeeding the late R. I. Ingalls, Sr.

Waldo F. Operer, recently with Belding Corticelli's industrial thread division, has organized his own company, **The Industrial Thread Corp.,** with headquarters at 13 University Place, New York, N. Y. The new firm will market threads of both natural and synthetic fibers.

George C. Miller, with the firm since 1945, has been made sales man-

Mr. Miller

ager of the textile yarn division of **Industrial Rayon Corp.**

Columbia-Southern Chemical Corp., a subsidiary of **Pittsburgh Plate Glass Co.,** has announced the appointment of C. F. Bingham and J. F. Dockum as assistant directors of sales. R. M. Simpson has taken over Mr. Bingham's former position, becoming acting manager of pigment sales; and P. A. Fodor succeeds Mr. Dockum as Philadelphia district sales manager. E. M. Rollins was named district sales manager at Dallas, Tex., and C. J. Stroemple has been transferred to the market research and development department.

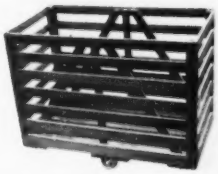
Kearny Manufacturing Co., Inc., has announced the following appointments: E. W. Ercklentz, vice-president in charge of sales; O. H.

Mr. Ercklentz

Winterer, machinery division; Henry J. Smith, engineer in charge of electronic and electromechanical research; Howard S. Gerry, salesman in its chemical division; and William R. Fox, representative for the six New England states.

Heyden Chemical Corp. has announced the sale by its subsidiaries, the Jamieson Pharmacal Co. and the

EXCEL



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Brass screws and cadmium plated bolts eliminate any possibility of rust. Because they are fastened from the outside they also insure against snagging. The Excel No. 600 is constructed of highly polished cypress or maple and finished with two coats of heat and acid resistant Tropelite to form a durable snag-proof surface. Slatted sides, ends and bottom permit perfect saturation and drainage.

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Ballooning of low twist and kinking of high twist yarns and sloughing off the quill winder was solved by . . .

1 part Lektrostat to 6-10 parts water, applied from bottle and wick attached to the quilling machine.

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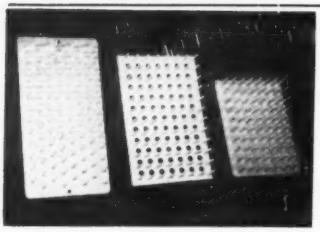

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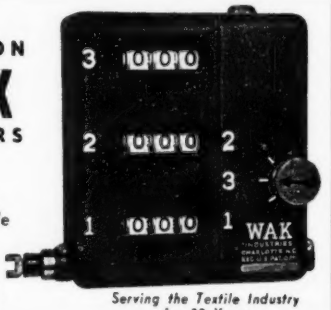

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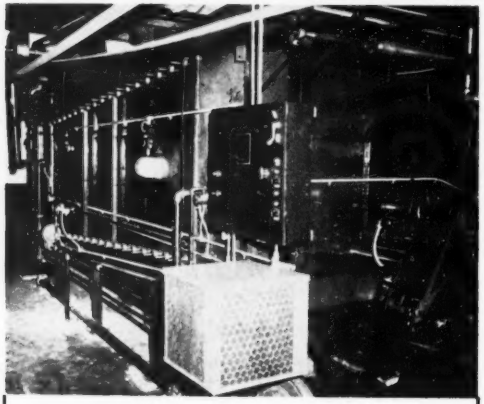

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JENKINTOWN PENNSYLVANIA

Nyal Co., of substantially all their assets to a group of private investors. All of the stock of its wholly owned Canadian subsidiary, C. E. Jamieson and Co. (Dominion) Ltd., has also been sold. This is in line with Heyden's program of integration in the fields of fine chemicals and antibiotics, according to John P. Remensnyder, president.

Raymond E. Olson was recently elected president of **Taylor Instrument Companies**, succeeding Lewis

Mr. Fleig

B. Swift, now chairman of the board of directors. Appointed to replace Mr. Olson as general sales manager is Frank S. Ward; Albert J. Fleig has taken Mr. Ward's place as industrial sales manager.

Beaven W. Mills has been made sales manager for Gairvure cartons for **Robert Gair Co., Inc.**

E. R. Adair has joined Henry Papini in representing **Warwick Chemical Co.** in South Carolina. Mr. Adair will concentrate on technical service of the "Suntone" pigment colors. Warwick is a division of Sun Chemical Corp.

Carl E. Foss of Princton, N. J., was recently made a director of the **Macbeth Corp.**, Newburgh, N. Y. He is presently color consultant to the Sherwin-Williams Co., Wyandotte Chemical Co., and the Container Corp. of America.

Quaker Rubber Corp., division of **H. K. Porter Co., Inc.**, has announced the appointment of J. J. Merkel and E. E. Klemm branch managers of the Detroit and Cleveland districts, respectively.

Donald G. Brewster, president of Oscar Heineman Corp., was recently elected to succeed Edward W. Wood as president of the **Chicago Yarn Men's Club.** Other officers are: William C. Napier, Jr., Grove Nylon Co., vice-president; William E. Ferry, nylon division of E. I. du Pont de Nemours & Co., Inc., secretary; and Warner H. Hutchinson of Wood & Hutchinson, treasurer.

G. B. Davis was recently elected vice-president in charge of sales by the board of directors of **The Baker-Raulang Co.** Mr. Davis, with the firm for 17 years, replaces John R. Morrill, resigned.

Roland D. Seeback has joined the export department of **Boger & Crawford**, mercerized yarns. Ian M. Haldane of London, Ontario, has been made representative of the firm in Canada.

Hooker Electrochemical Co. has plans under way for construction of a $10,000,000 plant at Montague, Mich., for the manufacture of chlorine and caustic soda. It is expected to be in operation by the end of next year.

Dr. Lauriston C. Marshall was recently appointed director of **Link-Belt Co.'s** new physical testing and research laboratory in Indianapolis. William J. Brinkworth was made representative, distributor sales, southwestern division, with headquarters in Houston, Tex.

SUPPLIERS News
WHAT THEY ARE DOING

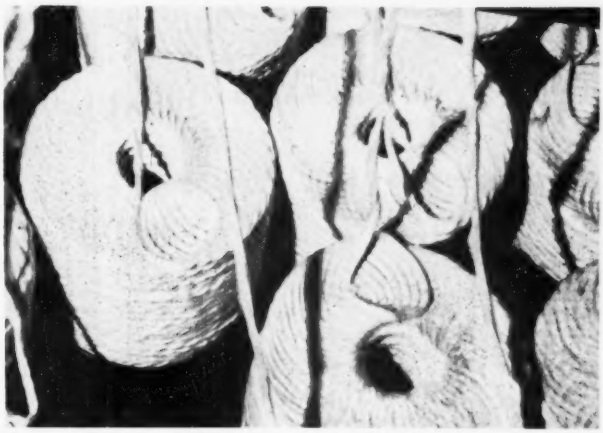
L. A. Fluck, previously manager of the application laboratories of the Textile Resin department of **American Cyanamid Co.**, has been promoted to assistant to the manager of the department. T. F. Cooke has taken over Mr. Fluck's former duties.

Harry King has been made sales

Mr. King

representative in South Carolina for the **Marquette Metal Products Co.**

Walter E. Schirmer, vice-president of the Clark Equipment Co., was re-



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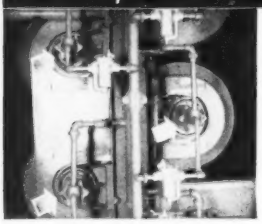

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PEERLESS ROLLER COVERING SHOP

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438 FRAZIER AVENUE CHATTANOOGA 5, TENNESSEE
Representatives: For Long Draft Aprons
Carolina Supply Co.—Greenville, S. C.

cently elected president of the **Industrial Truck Association.** Prentice Borden, general manager of the Crescent Truck Co., was made vice-president.

J. E. Myrick has joined **Stein, Hall & Co., Inc.,** as representative in Alabama and Mississippi. W. R. Simpson

Mr. Myrick

Mr. Simpson

has been appointed technical salesman for the state of Georgia. Both men will have their headquarters in Atlanta, Ga.

Thomas J. Brockman, Jr., was recently elected vice-president of **John Hetherington and Sons, Inc.**

Previously with the Griscom-Russell Co., George A. Fricke has joined **Superior Combustion Industries, Inc.** as manager of the heat exchanger division. His headquarters will be in Times Tower Building, New York, N. Y.

Warner Electric Brake & Clutch Co. has named as Ontario representative Kenny Consolidated Engineering Industries, Ltd., 58 Wellington St. E., Toronto, Canada. Donald R. McComb, with the firm since 1947, has been made advertising manager.

Sales of **Edda International Corp.'s** Titan warp tying machine are being handled in the southern territory by **Ira L. Griffin & Son,** Charlotte, N. C. John Tillett, a graduate of M. I. T. and formerly with Pneumafil Corp., has joined Ira L. Griffin & Son and will handle the sales of this and other textile mill items handled by the organization.

D. G. Rogers, formerly executive vice-president, has been appointed president of the National Aniline Division of **Allied Chemical & Dye Corp.**

Homer R. Duffey, former general manager, chemicals department, and William G. Mason, cereal sales department, have been made vice-presidents of **Quaker Oats Co.,** both men continuing with their previous duties. Robert D. Stuart, Jr., manager of the firm's western feed division, has been made a director of the firm, succeeding Walter A. Templeton, resigned.

John Marshall Briley has left the law firm of Shearman & Sterling & Wright to become a vice-president of **Owens-Corning Fiberglas Corp.** Ben S. Wright, vice-president and general sales manager, has been reassigned as vice-president in charge of purchasing and trade relations; E. W. Smith is now in charge of sales branches and training programs; and Edward J. Detgen has been made sales manager of the general products division.

A new plan to insure prompt service at reasonable cost has been announced by **Mount Hope Machinery Co.** Equipment scheduled for servicing is shipped to the Taunton, Mass., plant, where the service department has a complete stock of repair parts, special tools and machines, and personnel trained for the repair and adjustment of the various units.

Jarvis Cromwell, president of **William Iselin & Co.** since 1931, was recently elected chairman of the board of directors, following the resignation of Lincoln Cromwell. Morton Goodspeed, formerly executive vice-president, succeeds Mr. Cromwell as president.

Carson L. Ruyle, with the firm for a number of years, was recently made advertising manager of the **Gardner-Denver Co.** Mr. Ruyle assumes the position occupied by Damon P. Tunnicliff, now on active service in the Navy.

Saco-Lowell Shops have announced the appointment of J. W. Hubbard as head of their Charlotte, N. C., office, with C. P. Clanton, Jr., super-

Mr. Clanton

Mr. Jones

vising the Greenville, S. C., office, and H. J. Jones in charge of the office at Atlanta, Ga. All three will report direct to the general sales office of the firm in Boston.

"Textile Fibers Department" is the new name for the **Du Pont Co.'s** rayon department, according to an an-

"THERE IS HARDLY ANYTHING IN THE WORLD THAT SOME MAN CANNOT MAKE A LITTLE WORSE AND SELL A LITTLE CHEAPER, AND THE PEOPLE WHO CONSIDER PRICE ONLY ARE THIS MAN'S LAWFUL PREY." (John Ruskin)

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SALES ENGINEERS
M. L. Johnston, Charlotte, N. C.
Donald C. Creech, Charlotte, N. C.
Henry A. Carter, Pawtucket, R. I.
Robert M. Leach, Pawtucket, R. I.

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ALL SIZES FOR ALL PURPOSES
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MINIMUM RATES

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William H. Harned, General Manager

"THE ROVING FRAME"
by Fay H. Martin

Every carder, frame fixer, section man, and superintendent will find "The Roving Frame," by Fay H. Martin, an instructive pamphlet. Mr. Martin, who has long written articles for "Textile Industries," clearly interprets draft, twist, lay, tension, pressure of the presser, hyperbola curve, the winding of the bobbin, reverse twist on the roving frame, roving frame cones, tensions and compounds so that the student or practical man will profit by his explanation.

This is a reprint of 26 pages 8½ x 11 of a series of articles which were previously published in "Textile Industries," containing valuable information, illustrations, tables, charts and diagrams.

Fay H. Martin was a recognized authority on the roving frame. This book has been adopted by textile schools and vocational schools. May be secured in conjunction with a 3-year subscription to "Textile Industries" for $5.00 (Foreign, $11.00).

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SUPPLIERS News
WHAT THEY ARE DOING

nouncement made by Robert L. Richards, general manager of the department. Under a new plan of organization the manufacturing of all the department's products will be placed in one division and the sales in another. J. Norman Tilley has been appointed general director in charge of the manufacturing division; and Thomas H. Urmston is now general director in charge of sales. Thomas L. Hale, Jr., has been named manager of the personnel and industrial relations division of this department.

The **Dow Chemical Co.** has opened a Los Angeles harbor terminal for storage of fifty per cent concentrate caustic soda solution.

Draper Corp. has acquired the operating property of **Walker Manufacturing Co.** The plant, now known as the Walker Division of Draper Corp., is being completely modernized.

Kenneth G. Donald, G. W. Seymour, and John D. Fennebresque were recently elected vice-presidents of **Celanese Corp. of America.** Mr. Donald is in charge of foreign operations; Mr. Seymour, of technical control; and Mr. Fennebresque of the chemical division.

Philip Swartz has been appointed sales and service representative in

Mr. Swartz

Pennsylvania for **Dexter Chemical Corp.**

John G. Bucuss, former general manager of the strapping division, has been appointed president of **Acme Steel Co.'s** newly formed Acme Steel Products Division. The division functions as an independent sales and distributing company for steel strapping, tools, and accessories.

The **Armstrong Cork Co.** has established a separate felt and fibrous products department of the industrial division, with D. P. Paiste as manager.

Theodore M. Dillaway and George B. Kellogg were recently elected as-

Mr. Kellogg Mr. Dillaway

sistant vice-presidents of **Buffalo Forge Co.** Both men have been with the company since 1940.

Edwin R. Jerome was recently elected president and general manager of **Victor Ring Traveler Co.**

Arthur S. Cookman, Jr., previously assistant manager of **American Viscose Corp.'s** Charlotte, N. C., sales office, is now assistant manager of the firm's rayon staple sales division in New York.

DINKLER HOTELS

in ATLANTA
The Dinkler-Ansley
Joe Crecy, Manager

in BIRMINGHAM
The Dinkler-Tutwiler
Ira M. Patton, Manager

in NEW ORLEANS
The St. Charles
J. J. ("Mike") O'Leary, Vice President and Manager

in NASHVILLE
The Andrew Jackson
Leon Womble, Manager

in MONTGOMERY
The Dinkler-Jefferson Davis
Homer Spiva, Manager

Executive Offices: Atlanta
Carling Dinkler, President
Carling Dinkler, Jr., Vice Pres. and Gen. Mgr.

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TPE

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3. Checking Processes
4. Revising Operating Methods.
5. Setting Work Loads
6. Incentives
7. Executive Controls

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Crossett, Arkansas

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4—10 x 5 Woonsocket Intermediates, 92 spindles each, 8½" gauge.
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30—12" Whitin Coilers.
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FOR SALE

2—Aldrich 40" single process pickers, 3 beaters each, 1947.

5—Saco-Lowell single process pickers, 2 beaters each, 40" laps, 1927.

2—Whitin Model A return air condensers, 1945.

29—Whitin 40" cotton cards with 12" coilers.

48—H&B 40" cotton cards with 12" coilers.

7—Dobson & Barlow 40" cotton cards with 12" coilers.

2—Whitin drawing frames, 4 deliveries each, 12" coilers, 1950 model.

4—Whitin drawing frames, 6 deliveries each, 12" coilers, 1918 model.

4—Whitin 9x4½ slubbers, 96 spindles each, 7" gauge, equipped with Whitin interdraft, 1947.

2—Woonsocket and Press 9x4½ slubbers, 108 spindles each, 6½" gauge, equipped with Whitin interdraft, 1947.

2—Saco-Lowell 9x4½ intermediates, 96 spindles each, 1927.

60—Frames of Whitin tape drive spinning, 3¼" gauge, equipped with Roth long draft.

46—Frames of Fales & Jenks tape drive spinning, 3¼" gauge, equipped with Roth long draft.

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806 Peachtree St., N.E. Dept. D, Atlanta 5, Ga.

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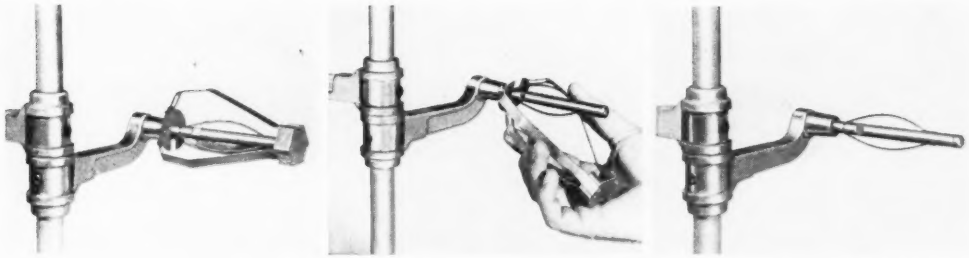

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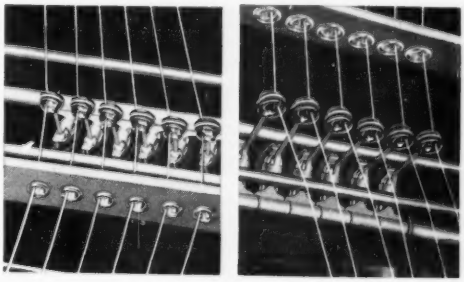

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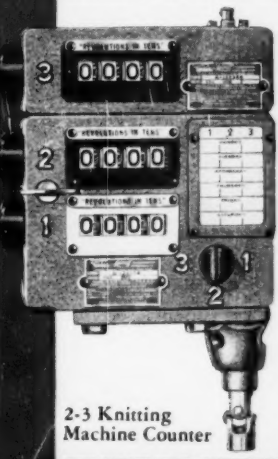
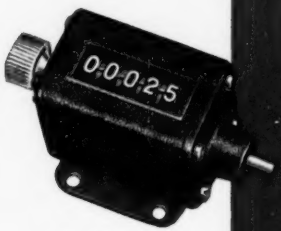
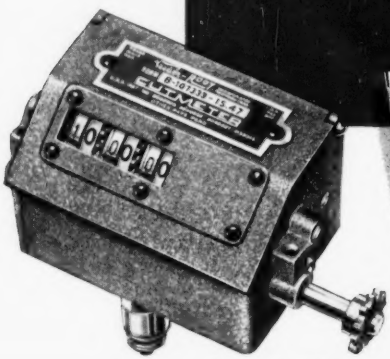


2-3 Knitting Machine Counter



Small Reset Counter

2-3 Pick Counter



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